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(54) **Titre : CONSTRUCTIONS PROTEIQUES DE LIAISON A L'ANTIGENE ET ANTICORPS ET LEURS UTILISATIONS**
(54) **Title: ANTIGEN-BINDING PROTEIN CONSTRUCTS AND ANTIBODIES AND USES THEREOF**

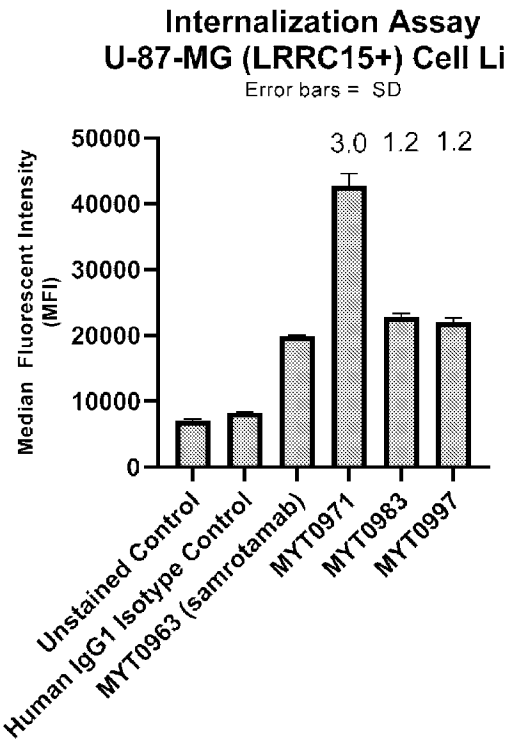


FIG. 41A

(57) **Abrégé/Abstract:**
Provided herein are antigen-binding protein constructs and antibodies and uses of the same.

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(54) Title: ANTIGEN-BINDING PROTEIN CONSTRUCTS AND ANTIBODIES AND USES THEREOF

(57) Abstract: Provided herein are antigen-binding protein constructs and antibodies and uses of the same.

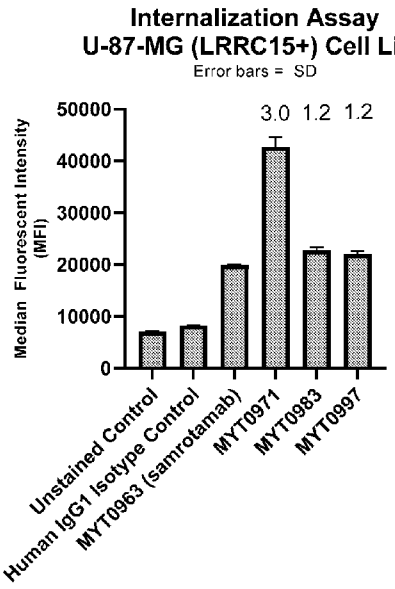


FIG. 41A

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CECI EST LE TOME 1 DE 2
CONTENANT LES PAGES 1 À 247

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ANTIGEN-BINDING PROTEIN CONSTRUCTS AND ANTIBODIES AND USES THEREOF

CROSS-REFERENCE TO RELATED APPLICATION

This application claims priority to U.S. Provisional Patent Application Serial No. 63/171,705, filed April 7, 2021; the entire contents of which are herein incorporated by reference.

TECHNICAL FIELD

The present disclosure relates to the field of biotechnology, and more specifically, to antigen-binding molecules.

SEQUENCE LISTING

This application contains a Sequence Listing that has been submitted electronically as an ASCII text file named 45395-0045WO_SL.txt. The ASCII text file, created on April 4, 2022, is 515 kilobytes in size. The material in the ASCII text file is hereby incorporated by reference in its entirety.

BACKGROUND

Antibody-drug-conjugates have been designed to combat a variety of diseases. One particular advantage of this approach is the ability for antibody-drug conjugates to have cytostatic or cytotoxic effects. Despite years of development, improved antibody-drug conjugates are desired.

SUMMARY

The present invention is based on the concept that antigen-binding protein constructs and antibodies can be generated that display enhanced efficacy (e.g., one or more of an increase (e.g., a detectable increase) in toxin liberation in a target mammalian cell, an increase (e.g., a detectable increase) in target mammalian cell killing, and an increase (e.g., a detectable increase) in endolysosomal delivery).

Provided herein are antibodies, where the antibody includes (a) a heavy chain variable domain and a light chain variable domain selected from the group of: (i) a heavy chain variable

domain that is at least 90% identical to SEQ ID NO: 1 and where the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 1 selected from the group consisting of: 33, 34, 50, 52, 57, 59, 100, 102, 103, 107, 108, and 109; and/or a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, where the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 2 selected from the group consisting of: 32, 34, 50, 51, 89, 90, 92, 93, 94, and 96; (ii) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 84 selected from the group consisting of: 27, 29, 32, 50, 54, 58, 99, 100, 102, 104, and 105 and/or a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, where the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 85 selected from the group consisting of: 29, 31, 32, 34, 36, 37, 38, 40, 56, 60, 61, 95, 96, 97, and 100; (iii) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 178 selected from the group consisting of: 33, 52, 56, 57, or 106; and/or a light chain variable domain that is at least 90% identical to SEQ ID NO: 179, where the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 179 selected from the group consisting of 25, 26, 28, 29, 31, 36, 37, 57, 59, 94, 95, 96, and 100; and (iv) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 272, where the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 272 selected from the group consisting of: 24, 27, 29, 62, 63, 98, and 108 and/or a light chain variable domain that is at least 90% identical to SEQ ID NO: 273, where the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 273 selected from the group consisting of 27, 28, 29, 31, 32, 89, 92, and 93; (b) a heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 including one or more of the following: (i) a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139; (ii) a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317; and (iii) an alanine to a cysteine substitution at amino acid position 1; and/or a light chain C_L sequence of SEQ ID NO: 353 including a valine to cysteine substitution at amino acid position 98.

In some embodiments the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 includes: a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317. In some embodiments, the antibody includes heavy chain and light chain sequences selected from the group of: (i) SEQ ID NO: 354 and SEQ ID NO: 2, respectively; (ii) SEQ ID NO: 360 and SEQ ID NO: 85, respectively; (iii) SEQ ID NO: 366 and SEQ ID NO: 179, respectively; and (iv) SEQ ID NO: 372 and SEQ ID NO: 273, respectively.

In some embodiments, the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 includes: a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139. In some embodiments, the antibody includes heavy chain and light chain sequences selected from the group of: (i) SEQ ID NO: 355 and SEQ ID NO: 2, respectively; (ii) SEQ ID NO: 361 and SEQ ID NO: 85, respectively; (iii) SEQ ID NO: 366 and SEQ ID NO: 179, respectively; and (iv) SEQ ID NO: 373 and SEQ ID NO: 273, respectively.

In some embodiments, the antibody includes the light chain C_L sequence of SEQ ID NO: 353 includes a valine to cysteine substitution at amino acid position 98. In some embodiments, the antibody includes heavy chain and light chain sequences selected from the group of: (i) SEQ ID NO: 1 and SEQ ID NO: 359, respectively; (ii) SEQ ID NO: 84 and SEQ ID NO: 365, respectively; (iii) SEQ ID NO: 178 and SEQ ID NO: 371, respectively; and (iv) SEQ ID NO: 272 and SEQ ID NO: 377, respectively.

In some embodiments, the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 includes: a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317; and the light chain C_L sequence of SEQ ID NO: 353 includes a valine to cysteine substitution at amino acid position 98. In some embodiments, the antibody includes heavy chain and light chain sequences selected from the group of: (i) SEQ ID NO: 354 and SEQ ID NO: 359, respectively; (ii) SEQ ID NO: 360 and SEQ ID NO: 365, respectively; (iii) SEQ ID NO: 366 and SEQ ID NO: 371, respectively; and (iv) SEQ ID NO: 372 and SEQ ID NO: 377, respectively;

In some embodiments, the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 includes: a methionine to tyrosine substitution at amino acid position 135, a

serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139; and the light chain C_L sequence of SEQ ID NO: 353 includes a valine to cysteine substitution at amino acid position 98. In some embodiments, the antibody includes heavy chain and light chain sequences selected from the group of: (i) SEQ ID NO: 355 and SEQ ID NO: 359, respectively; (ii) SEQ ID NO: 361 and SEQ ID NO: 365, respectively; (iii) SEQ ID NO: 367 and SEQ ID NO: 371, respectively; and (iv) SEQ ID NO: 373 and SEQ ID NO: 377, respectively.

In some embodiments, the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 includes: an alanine to a cysteine substitution at amino acid position 1. In some embodiments, the antibody includes heavy chain and light chain sequences selected from the group of: (i) SEQ ID NO: 356 and SEQ ID NO: 2, respectively; (ii) SEQ ID NO: 362 and SEQ ID NO: 85, respectively; (iii) SEQ ID NO: 368 and SEQ ID NO: 179, respectively; and (iv) SEQ ID NO: 374 and SEQ ID NO: 273, respectively.

In some embodiments, the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 includes: a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317; and an alanine to a cysteine substitution at amino acid position 1. In some embodiments, the antibody includes a heavy chain and a light chain sequence selected from the group of: (i) SEQ ID NO: 357 and SEQ ID NO: 2, respectively; (ii) SEQ ID NO: 363 and SEQ ID NO: 85, respectively; (iii) SEQ ID NO: 369 and SEQ ID NO: 179, respectively; and (iv) SEQ ID NO: 375 and SEQ ID NO: 273, respectively.

In some embodiments, the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 includes: a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139; and an alanine to a cysteine substitution at amino acid position 1. In some embodiments, the antibody includes a heavy chain and a light chain sequence selected from the group of: (i) SEQ ID NO: 358 and SEQ ID NO: 2, respectively; (ii) SEQ ID NO: 364 and SEQ ID NO: 85, respectively; (iii) SEQ ID NO: 370 and SEQ ID NO: 179, respectively; and (iv) SEQ ID NO: 376 and SEQ ID NO: 273, respectively.

In some embodiments, the antibody includes a cytotoxic drug conjugated to one or more of the following: (a) a heavy chain CH1-CH2-CH3 of SEQ ID NO: 351 or SEQ ID NO: 352 including one or more of the following: (i) the cysteine at amino acid position 103; (ii) the

cysteine at amino acid position 109; (iii) the cysteine at amino acid position 112; and/or (b) the cysteine at amino acid position 107 of SEQ ID NO: 353.

In some embodiments, the antibody includes a cytotoxic or cytostatic agent is conjugated to the cysteine at position 98 of SEQ ID NO: 353. In some embodiments, the antibody includes a cytotoxic or cytostatic agent is conjugated to the cysteine at position 1 of SEQ ID NO: 351 or SEQ ID NO: 352. In some embodiments, the cytotoxic or cytostatic agent is a conjugated toxin, a radioisotope, drug, or a small molecule.

In some embodiments, the (a) the dissociation rate of the antibody at a pH of about 4.0 to about 6.5 is faster than the dissociation rate at a pH of about 7.0 to about 8.0; or (b) the dissociation constant (K_D) of the antibody at a pH of about 4.0 to about 6.5 is greater than the K_D at a pH of about 7.0 to about 8.0.

In some embodiments, a composition including the antibody: provides for one or more of: an increase in toxin liberation in a target mammalian cell as compared to a composition including the same amount of a control antibody; an increase in target mammalian cell killing as compared to a composition including the same amount of a control antibody; and an increase in endolysosomal delivery in the target mammalian cell as compared to a composition including the same amount of a control antibody.

In some embodiments, where a composition including the antibody: results in a less of a reduction in the level of LRRC15presented on the surface of a target mammalian cell as compared to a composition including the same amount of a control antibody; or does not result in a detectable reduction in the level of LRRC15presented on the surface of the target mammalian cell.

In some embodiments, the antibody is degraded in a target mammalian cell following internalization of the antibody by a target mammalian cell. In some embodiments, the target mammalian cell is a cancer cell. In some embodiments, the antibody is cytotoxic or cytostatic to the target mammalian cell. In some embodiments, the antibody has an avidity that results in increased selectivity for cancer cells over non-cancerous cells.

In some embodiments, the antibody is: cross-reactive with a non-human primate LRRC15 and human LRRC15; or cross-reactive with a non-human primate LRRC15, a human LRRC15, and one or both of rat LRRC15 and a mouse LRRC15.

In some embodiments, the half-life of the antibody in vivo is increased as compared to the half-life of a control antibody in vivo.

Also provided herein are pharmaceutical compositions including an effective amount of any one of the antibodies described herein where the first antigen-binding domain includes one of (a) through (d): (a) a light chain variable domain of SEQ ID NO: 2, SEQ ID NO: 61, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 71, SEQ ID NO: 72, SEQ ID NO: 74, SEQ ID NO: 75, SEQ ID NO: 76, or SEQ ID NO: 78 and/or a heavy chain variable domain of SEQ ID NO: 1, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 23, SEQ ID NO: 25, SEQ ID NO: 30, SEQ ID NO: 32, SEQ ID NO: 43, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 50, SEQ ID NO: 51, SEQ ID NO: 52, SEQ ID NO: 80, SEQ ID NO: 81, SEQ ID NO: 82, or SEQ ID NO: 83, where the first antigen-binding domain does not include (i) a light chain variable domain of SEQ ID NO: 2 and a heavy chain variable domain of SEQ ID NO: 1; (ii) a light chain variable domain of SEQ ID NO: 2 and heavy chain variable domain that is not one of SEQ ID NOs: 20, 21, 23, 25, 30, 32, 43, 45, 46, 50-52, or 80-83; or (iii) a heavy chain variable domain of SEQ ID NO: 1 and a light chain variable domain that is not one of SEQ ID NOs: 61, 63-65, 71, 72, 74-76, or 78; (b) a light chain variable domain of SEQ ID NO: 85, SEQ ID NO: 137, SEQ ID NO: 139, SEQ ID NO: 140, SEQ ID NO: 142, SEQ ID NO: 144, SEQ ID NO: 145, SEQ ID NO: 146, SEQ ID NO: 148, SEQ ID NO: 149, SEQ ID NO: 153, SEQ ID NO: 154, SEQ ID NO: 156, SEQ ID NO: 157, SEQ ID NO: 158, SEQ ID NO: 161, SEQ ID NO: 169, SEQ ID NO: 170, SEQ ID NO: 171, SEQ ID NO: 172, SEQ ID NO: 173, SEQ ID NO: 174, SEQ ID NO: 175, SEQ ID NO: 176, or SEQ ID NO: 177, and/or a heavy chain variable domain of SEQ ID NO: 84, SEQ ID NO: 93, SEQ ID NO: 95, SEQ ID NO: 98, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 106, SEQ ID NO: 110, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 124, SEQ ID NO: 126, SEQ ID NO: 127, or SEQ ID NO: 166, where the first antigen-binding domain does not include (i) a light chain variable domain of SEQ ID NO: 85 and a heavy chain variable domain of SEQ ID NO: 84; (ii) a light chain variable domain of SEQ ID NO: 85 and heavy chain variable domain that is not one of SEQ ID NOs: 93, 95, 98, 101, 102, 106, 110, 120-122, 124, 126, 127, or 166; or (iii) a heavy chain variable domain of SEQ ID NO: 84 and a light chain variable domain that is not one of SEQ ID NOs: 137, 139, 140, 142, 144-146, 148, 149, 153, 154, 156-158, 161, or 169-177; (c) a light chain variable domain of SEQ ID NO: 179, SEQ ID NO: 229, SEQ ID NO: 230, SEQ ID NO: 232, SEQ ID NO: 233, SEQ ID NO: 235, SEQ ID NO:

240, SEQ ID NO: 241, SEQ ID NO: 246, SEQ ID NO: 248 SEQ ID NO: 251, SEQ ID NO: 252, SEQ ID NO: 253, SEQ ID NO: 257, SEQ ID NO: 263, SEQ ID NO: 264, SEQ ID NO: 268, SEQ ID NO: 269, SEQ ID NO: 270, or SEQ ID NO: 271, and/or a heavy chain variable domain of SEQ ID NO: 178, SEQ ID NO: 196, SEQ ID NO: 201, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 225, SEQ ID NO: 258, SEQ ID NO: 259, SEQ ID NO: 260, or SEQ ID NO: 261, where the first antigen-binding domain does not include (i) a light chain variable domain of SEQ ID NO: 179 and a heavy chain variable domain of SEQ ID NO: 178; (ii) a light chain variable domain of SEQ ID NO: 179 and heavy chain variable domain that is not one of SEQ ID NOs: 196, 201, 205, 206, 225, or 258-261; or (iii) a heavy chain variable domain of SEQ ID NO: 178 and a light chain variable domain that is not one of SEQ ID NOs: 229, 230, 232, 233, 235, 240, 241, 246, 248, 251-253, 257, 263, 264, or 268-271; and (d) a light chain variable domain of SEQ ID NO: 273, SEQ ID NO: 327, SEQ ID NO: 328, SEQ ID NO: 329, SEQ ID NO: 331, SEQ ID NO: 332, SEQ ID NO: 342, SEQ ID NO: 345, or SEQ ID NO: 346 and/or a heavy chain variable domain of SEQ ID NO: 272, SEQ ID NO: 281, SEQ ID NO: 284, SEQ ID NO: 286, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 311, or SEQ ID NO: 321, where the first antigen-binding domain does not include (i) a light chain variable domain of SEQ ID NO: 273 and a heavy chain variable domain of SEQ ID NO: 272; (ii) a light chain variable domain of SEQ ID NO: 273 and heavy chain variable domain that is not one of SEQ ID NOs: 281, 284, 286, 305, 306, 311, or 321; or (iii) a heavy chain variable domain of SEQ ID NO: 272 and a light chain variable domain that is not one of SEQ ID NOs: 327-329, 331, 332, 342, 345, or 346.

Also provided herein are kits including at least one dose of the antibody of any of the antibodies described herein or any of the pharmaceutical compositions described herein.

Also provided herein are method of treating a cancer characterized by having a population of cancer cells that have LRRC15 or an epitope of LRRC15 presented on their surface, the method including: administering a therapeutically effective amount of the antibody of any one of the antibodies described herein or any one of the pharmaceutical compositions described herein to a subject identified as having a cancer characterized by having the population of cancer cells.

Also provided herein are methods of reducing the volume of a tumor in a subject, where the tumor is characterized by having a population of cancer cells that have LRRC15 or an epitope of LRRC15 presented on their surface, the method including: administering a

therapeutically effective amount of the antibody of any one of the antibodies described herein or any of the pharmaceutical compositions described herein to a subject identified as having a cancer characterized by having the population of cancer cells.

Also provided herein are methods of inducing cell death in a cancer cell in a subject, where the cancer cell has LRRC15 or an epitope of LRRC15 presented on its surface, where the method includes: administering a therapeutically effective amount of the antibody of any one of the antibodies described herein or any one of the pharmaceutical compositions described herein to a subject identified as having a cancer characterized by having a population of the cancer cells.

Also provided herein are methods of decreasing the risk of developing a metastasis or decreasing the risk of developing an additional metastasis in a subject having a cancer, where the cancer is characterized by having a population of cancer cells that have LRRC15 or an epitope of LRRC15 presented on their surface the method including: administering a therapeutically effective amount of the antibody of any one of the antibodies described herein or the any one of the pharmaceutical compositions described herein to a subject identified as having a cancer characterized by having the population of cancer cells.

Also provided herein are antibodies, where the antibody includes: (a) heavy chain variable domain and a light chain variable domain selected from the group consisting of: (i) SEQ ID NO: 1 and SEQ ID NO: 2, respectively; (ii) SEQ ID NO: 84 and SEQ ID NO: 85, respectively; (iii) SEQ ID NO: 178 and SEQ ID NO: 179, respectively; and (iv) SEQ ID NO: 272 and SEQ ID NO: 273, respectively; (b) a heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 including one or more of the following substitution(s): (i) a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139; (ii) a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317; and (iii) an alanine to cysteine substitution at amino acid position 1; and/or a light chain C_L sequence of SEQ ID NO: 353 including a valine to cysteine substitution at position 98.

In some embodiments, the heavy CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 includes: a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317. In some embodiments, the antibody

includes heavy chain and light chain sequences selected from the group of: (i) SEQ ID NO: 354 and SEQ ID NO: 2, respectively; (ii) SEQ ID NO: 360 and SEQ ID NO: 85, respectively; (iii) SEQ ID NO: 366 and SEQ ID NO: 179, respectively; and (iv) SEQ ID NO: 372 and SEQ ID NO: 273, respectively.

In some embodiments, the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 includes: a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139. In some embodiments, the antibody includes a heavy chain and a light chain sequence selected from the group of: (i) SEQ ID NO: 355 and SEQ ID NO: 2, respectively; (ii) SEQ ID NO: 361 and SEQ ID NO: 85, respectively; (iii) SEQ ID NO: 366 and SEQ ID NO: 179, respectively; and (iv) SEQ ID NO: 373 and SEQ ID NO: 273, respectively.

In some embodiments, the light chain C_L sequence of SEQ ID NO: 353 includes a valine to cysteine substitution at amino acid position 98. In some embodiments, the antibody includes heavy chain and light chain sequences selected from the group of: (i) SEQ ID NO: 1 and SEQ ID NO: 359, respectively; (ii) SEQ ID NO: 84 and SEQ ID NO: 365, respectively; (iii) SEQ ID NO: 178 and SEQ ID NO: 371, respectively; and (iv) SEQ ID NO: 272 and SEQ ID NO: 377, respectively.

In some embodiments, the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 includes: a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317; and the light chain C_L sequence of SEQ ID NO: 353 includes a valine to cysteine substitution at amino acid position 98.

In some embodiments, the antibody includes heavy chain and light chain sequences selected from the group of: (i) SEQ ID NO: 354 and SEQ ID NO: 359, respectively; (ii) SEQ ID NO: 360 and SEQ ID NO: 365, respectively; (iii) SEQ ID NO: 366 and SEQ ID NO: 371, respectively; and (iv) SEQ ID NO: 372 and SEQ ID NO: 377, respectively.

In some embodiments, the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 includes: a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139; and the light chain C_L sequence of SEQ ID NO: 353 includes a valine to cysteine substitution at amino acid position 98. In some embodiments, the

antibody includes heavy chain and light chain sequences selected from the group of: (i) SEQ ID NO: 355 and SEQ ID NO: 359, respectively; (ii) SEQ ID NO: 361 and SEQ ID NO: 365, respectively; (iii) SEQ ID NO: 367 and SEQ ID NO: 371, respectively; and (iv) SEQ ID NO: 373 and SEQ ID NO: 377, respectively.

In some embodiments, the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 includes: an alanine to a cysteine substitution at amino acid position 1. In some embodiments, the antibody includes heavy chain and light chain sequences selected from the group of: (i) SEQ ID NO: 356 and SEQ ID NO: 2, respectively; (ii) SEQ ID NO: 362 and SEQ ID NO: 85, respectively; (iii) SEQ ID NO: 368 and SEQ ID NO: 179, respectively; and (iv) SEQ ID NO: 374 and SEQ ID NO: 273, respectively.

In some embodiments, the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 includes: a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317; and an alanine to a cysteine substitution at amino acid position 1. In some embodiments, the antibody includes a heavy chain and a light chain sequence selected from the group of: (i) SEQ ID NO: 357 and SEQ ID NO: 2, respectively; (ii) SEQ ID NO: 363 and SEQ ID NO: 85, respectively; (iii) SEQ ID NO: 369 and SEQ ID NO: 179, respectively; and (iv) SEQ ID NO: 375 and SEQ ID NO: 273, respectively.

In some embodiments, the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 includes: a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139; and an alanine to a cysteine substitution at amino acid position 1. In some embodiments, the antibody includes heavy chain and light chain sequences selected from the group of: (i) SEQ ID NO: 358 and SEQ ID NO: 2, respectively; (ii) SEQ ID NO: 364 and SEQ ID NO: 85, respectively; (iii) SEQ ID NO: 370 and SEQ ID NO: 179, respectively; and (iv) SEQ ID NO: 376 and SEQ ID NO: 273, respectively.

In some embodiments, the antibody includes a cytotoxic drug conjugated to one or more of the following: (a) a heavy chain CH1-CH2-CH3 of SEQ ID NO: 351 or SEQ ID NO: 352 including one or more of the following: (i) the cysteine at amino acid position 103; (ii) the cysteine at amino acid position 109; and (iii) the cysteine at amino acid position 112; and/or (b) the cysteine at amino acid position 107 of SEQ ID NO: 353.

In some embodiments, the antibody includes a cytotoxic or cytostatic agent is conjugated to the cysteine at position 98 of SEQ ID NO: 353.

In some embodiments, the antibody includes a cytotoxic or cytostatic agent is conjugated to the cysteine at position 1 of SEQ ID NO: 351 or SEQ ID NO: 352.

In some embodiments, the cytostatic or cytotoxic agent is a conjugated toxin, a radioisotope, drug, or a small molecule. In some embodiments, the antibody is cytotoxic or cytostatic to a target mammalian cell. In some embodiments, the antibody is degraded in the target mammalian cell following internalization of the antibody by the target mammalian cell. In some embodiments, the target mammalian cell is a cancer cell. In some embodiments, the antibody has an avidity that results in increased selectivity for cancer cells over non-cancerous cells.

In some embodiments, the antibody is cross-reactive with a non-human primate LRRC15 and human LRRC15; or cross-reactive with a non-human primate LRRC15, a human LRRC15, and one or both of rat LRRC15 and a mouse LRRC15.

In some embodiments, the half-life of the antibody in vivo is increased as compared to the half-life of a control antibody in vivo.

In some embodiments, the target mammalian cell is a cancer cell.

Also provided herein are pharmaceutical compositions including an effective amount of any one of the antibodies described herein.

Also provided herein are kits including at least one dose of the antibody of any one of the antibodies described herein or any one of the pharmaceutical compositions described herein.

Also provided herein are methods of treating a cancer characterized by having a population of cancer cells that have LRRC15 or an epitope of LRRC15 presented on their surface, the method including: administering a therapeutically effective amount of the antibody of any one of the antibodies described herein or any one of the pharmaceutical compositions described herein to a subject identified as having a cancer characterized by having the population of cancer cells.

Also provided herein are methods of reducing the volume of a tumor in a subject, where the tumor is characterized by having a population of cancer cells that have LRRC15 or an epitope of LRRC15 presented on their surface, the method including: administering a therapeutically effective amount of the antibody of any one of the antibodies described herein or

any one of the pharmaceutical compositions described herein to a subject identified as having a cancer characterized by having the population of cancer cells.

Also provided herein are methods of inducing cell death in a cancer cell in a subject, where the cancer cell has LRRC15 or an epitope of LRRC15presented on its surface, where the method includes: administering a therapeutically effective amount of the antibody of any one of the antibodies described herein or any one of the pharmaceutical compositions described herein to a subject identified as having a cancer characterized by having a population of the cancer cells.

Also provided herein are methods of decreasing the risk of developing a metastasis or decreasing the risk of developing an additional metastasis in a subject having a cancer, where the cancer is characterized by having a population of cancer cells that have LRRC15 or an epitope of LRRC15 presented on their surface the method including: administering a therapeutically effective amount of the antibody of any one of the antibodies described herein or any one of the pharmaceutical compositions described herein to a subject identified as having a cancer characterized by having the population of cancer cells.

As used herein, the term "antigen-binding protein construct" is (i) a single polypeptide that includes at least one antigen-binding domain or (ii) a complex of two or more polypeptides (e.g., the same or different polypeptides) that together form at least one antigen-binding domain. Non-limiting examples and aspects of antigen-binding protein constructs are described herein. Additional examples and aspects of antigen-binding protein constructs are known in the art.

A "multi-specific antigen-binding protein construct" is an antigen-binding protein construct that includes two or more different antigen-binding domains that collectively specifically bind two or more different epitopes. The two or more different epitopes may be epitopes on the same antigen (e.g., a single polypeptide present on the surface of a cell) or on different antigens (e.g., different proteins present on the surface of the same cell or present on the surface of different cells). In some aspects, the antigen is present on the surface of the cell. In some aspects, a multi-specific antigen-binding protein construct binds two different epitopes (i.e., a "bispecific antigen-binding protein construct"). In some aspects, a multi-specific antigen-binding protein construct binds three different epitopes (i.e., a "trispecific antigen-binding protein construct"). In some aspects, a multi-specific antigen-binding protein construct binds four different epitopes (i.e., a "quadspecific antigen-binding protein construct"). In some

aspects, a multi-specific antigen-binding protein construct binds five different epitopes (i.e., a "quintspecific antigen-binding protein construct"). Each binding specificity may be present in any suitable valency. Non-limiting examples of multi-specific antigen-binding protein constructs are described herein.

An "antigen-binding domain" is one or more protein domain(s) (e.g., formed from amino acids from a single polypeptide or formed from amino acids from two or more polypeptides (e.g., the same or different polypeptides) that is capable of specifically binding to one or more different antigen(s). In some examples, an antigen-binding domain can bind to an antigen or epitope with specificity and affinity similar to that of naturally-occurring antibodies. In some embodiments, the antigen-binding domain can be an antibody or a fragment thereof. In some embodiments, an antigen-binding domain can include an alternative scaffold. Non-limiting examples of antigen-binding domains are described herein. Additional examples of antigen-binding domains are known in the art. In some examples, an antigen-binding domain can bind to a single antigen.

The term "antibody" is used herein in its broadest sense and includes certain types of immunoglobulin molecules that include one or more antigen-binding domains that specifically bind to an antigen or epitope. An antibody specifically includes, e.g., intact antibodies (e.g., intact immunoglobulins, e.g., human IgG (e.g., human IgG1, human IgG2, human IgG3, human IgG4)), antibody fragments, and multi-specific antibodies. One example of an antigen-binding domain is an antigen-binding domain formed by a VH -VL dimer. Additional examples of an antibody are described herein. Additional examples of an antibody are known in the art.

The phrase "endosomal/lysosomal pathway" refers to a network of endosomes (early endosomes, multi-vesicular bodies, late endosomes, and lysosomes) in the cytoplasm of a mammalian cell, wherein molecules internalized through cell-mediated internalization processes, e.g., pinocytosis, micropinocytosis, receptor-mediated endocytosis, and/or phagocytosis, are sorted.

Once the endosomes in the endosomal/lysosomal pathway are purified or isolated, assays for a target protein (e.g., an antigen-binding protein construct described herein) can be performed using methods known in the art (ELISA, Western blot, immunofluorescence, and immunoprecipitation followed by an assay for protein concentration), and can be used to determine the concentration or relative level of the target protein in the endosomes.

Alternatively, endosomes in the endosomal/lysosomal pathway can be imaged using immunofluorescence microscopy using an detectably-labelled antibody (e.g., a fluorophore-labelled, a dye-labelled, or a GFP-labelled antibody, e.g., CellLight™ Early Endosome-GFP) that specifically binds to a characteristic protein present in the endosomes (e.g., EEA1 for early endosomes) and a fluorophore-labelled antibody that specifically binds to the protein of interest (e.g., an antigen-binding protein construct), and the level of the target protein in the endosomes can be determined by quantitation of the overlap in the fluorescence emissions of the two different antibodies.

The phrase "endolysosomal delivery" refers to rate of accumulation over time or the total accumulation at a specific timepoint of an antigen-binding protein construct (e.g., any of the antigen-binding protein constructs described herein) in the endosomal/lysosomal pathway in a mammalian cell (e.g., any of the exemplary target mammalian cells described herein).

An exemplary method to calculate the increase in endolysosomal delivery of a pH engineered ABPC variant as compared to its corresponding starting ABPC from cellular fluorescence data is to measure the ratio of the variant's mean fluorescence intensity minus the mean fluorescence intensity of a non-binding IgG control, then all divided by the variant's corresponding starting ABPC's mean fluorescence intensity minus the mean fluorescence intensity of the IgG control.

An exemplary assay for measuring endolysosomal delivery of any of the ABPCs described herein include those which involve labeling of an ABPC with a fluorescent dye, followed by incubation of the labeled ABPC with cells and measurement of cellular fluorescence as an indicator of endolysosomal delivery of the ABPC (e.g., as described generally in Wustner, *Traffic* 7(6):699-715, 2006). Alternatively, pH-sensitive dyes which preferentially fluoresce at acidic pH but not neutral pH can be used to label any of the ABPCs described herein, which can then be incubated with cells and the cellular fluorescence measured as an indicator of delivery of the ABPC into acidic endolysosomal compartments.

The term "population" when used before a noun means two or more of the specific noun. For example, the phrase "a population of cancer cells" means "two or more cancer cells." Non-limiting examples of cancer cells are described herein.

The phrase "cytostatic to a cell" refers to a direct or indirect decrease in the proliferation (cell division) of the cell (e.g., a cancer cell) *in vivo* or *in vitro*. When an agent is cytostatic to a

cell, the agent can, e.g., directly or indirectly result in cell cycle arrest of the cell (e.g., a cancer cell). In some examples, an agent that is cytostatic to a cell can reduce the number of cells in a population of the cells that are in S phase (as compared to the number of cells in a population of the cells that are in S phase prior to contact with the agent). In some examples, an agent that is cytostatic to a cell can reduce the percentage of the cells in S phase by at least 20%, at least 40%, at least 60%, or at least 80% (e.g., as compared to the percentage of cells in a population of the cells that are in S phase prior to contact with the agent).

The phrase "cytotoxic to a cell" refers to the inducement, directly or indirectly, in the death (e.g., necrosis or apoptosis) of the cell (e.g., a mammalian cell, e.g., a cancer cell).

"Affinity" refers to the strength of the sum total of non-covalent interactions between an antigen-binding site and its binding partner (e.g., an antigen or epitope). Unless indicated otherwise, as used herein, "affinity" refers to intrinsic binding affinity, which reflects a 1:1 interaction between members of an antigen-binding domain and an antigen or epitope. The affinity of a molecule X for its partner Y can be represented by the dissociation equilibrium constant (K_D). Affinity can be measured by common methods known in the art, including those described herein. Affinity can be determined, for example, using surface plasmon resonance (SPR) technology (e.g., BIACORE®) or biolayer interferometry (e.g., FORTEBIO®). Additional methods for determining the affinity for an antigen-binding domain and its corresponding antigen or epitope are known in the art.

The term "epitope" means a portion of an antigen that is specifically bound by an antigen-binding domain through a set of physical interactions between: (i) all monomers (e.g. individual amino acid residues, sugar side chains, and post-translationally modified amino acid residues) on the portion of the antigen-binding domain that specifically binds the antigen and (ii) all monomers (e.g. individual amino acid residues, sugar side chains, post-translationally modified amino acid residues) on the portion of the antigen that is specifically bound by the antigen-binding domain. Epitopes can, e.g., consist of surface-accessible amino acid residues, sugar side chains, phosphorylated amino acid residues, methylated amino acid residues, and/or acetylated amino acid residues and may have specific three-dimensional structural characteristics, as well as specific charge characteristics. Conformational and non-conformational epitopes are distinguished in that binding to the former, but not the latter, may be lost in the presence of denaturing solvents. In some embodiments, an epitope is defined by a

linear amino acid sequence of at least about 3 to 6 amino acids, or about 10 to 15 amino acids. In some embodiments, an epitope refers to a portion of a full-length protein or a portion thereof that is defined by a three-dimensional structure (e.g., protein folding). In some embodiments, an epitope is defined by a discontinuous amino acid sequence that is brought together via protein folding. In some embodiments, an epitope is defined by a discontinuous amino acid sequence that is brought together by quaternary structure (e.g., a cleft formed by the interaction of two different polypeptide chains). The amino acid sequences between the residues that define the epitope may not be critical to three-dimensional structure of the epitope. A conformational epitope may be determined and screened using assays that compare binding of antigen-binding protein construct to a denatured version of the antigen, such that a linear epitope is generated. An epitope may include amino acid residues that are directly involved in the binding, and other amino acid residues, which are not directly involved in the binding.

Methods for identifying an epitope to which an antigen-binding domain specifically binds are known in the art, e.g., structure-based analysis (e.g. X-ray crystallography, NMR, and/or electron microscopy) (e.g. on the antigen and/or the antigen-antigen binding domain complex) and/or mutagenesis-based analysis (e.g. alanine scanning mutagenesis, glycine scanning mutagenesis, and homology scanning mutagenesis) wherein mutants are measured in a binding assay with a binding partner, many of which are known in the art.

The term "paratope" means a portion of an antigen-binding domain that specifically binds to an antigen through a set of physical interactions between: (i) all monomers (e.g. individual amino acid residues, sugar side chains, posttranslationally modified amino acid residues) on the portion of the antigen-binding domain that specifically binds the antigen and (ii) all monomers (e.g. individual amino acid residues, sugar side chains, posttranslationally modified amino acid residues) on the portion of the antigen that is specifically bound by the antigen-binding domain. Paratopes can, e.g. consist of surface-accessible amino acid residues and may have specific three-dimensional structural characteristics, as well as specific charge characteristics. In some embodiments, a paratope refers to a portion of a full-length antigen-binding domain or a portion thereof that is defined by a three-dimensional structure (e.g., protein folding). In some embodiments, a paratope is defined by a discontinuous amino acid sequence that is brought together via protein folding. In some embodiments, an epitope is defined by a discontinuous amino acid sequence that is brought together by quaternary structure (e.g., a cleft formed by the

interaction of two different polypeptide chains). The amino acid sequences between the residues that define the paratope may not be critical to three-dimensional structure of the paratope. A paratope may comprise amino acid residues that are directly involved in the binding, and other amino acid residues, which are not directly involved in the binding.

Methods for identifying a paratope to which an antigen-binding domain specifically binds are known in the art, e.g., structure-based analysis (e.g., X-ray crystallography, NMR, and/or electron microscopy) (e.g. on the antigen-binding domain, and/or the antigen binding domain-antigen complex), and/or mutagenesis-based analysis (e.g., alanine scanning mutagenesis, glycine scanning mutagenesis, and homology scanning mutagenesis) wherein mutants are measured in a binding assay with a binding partner, many of which are known in the art.

The phrase "present on the surface of a mammalian cell" means (1) an antigen that physically attached to or at least partially embedded in the plasma membrane of a mammalian cell (e.g., a transmembrane protein, a peripheral membrane protein, a lipid-anchored protein (e.g., a GPI-anchor), an N-myristolyated protein, or a S-palmitoylated protein) or (2) an antigen that is stably bound to its cognate receptor, where the cognate receptor is physically attached to the plasma membrane of a mammalian cell (e.g., a ligand bound to its cognate receptor, where the cognate receptor is physically attached to the plasma membrane). Non-limiting methods for determining the presence of antigen on the surface of a mammalian cell include fluorescence-activated cell sorting (FACS), immunohistochemistry, cell-fractionation assays and Western blotting.

The phrase "control ABPC" or "control antigen-binding protein construct" means (i) an ABPC that is capable of specifically binding to LRRC15 or an epitope of LRRC15 presented on the surface of a mammalian cell (e.g., a target mammalian cell), where one or both of the following is true: (a) the dissociation rate of the first antigen-binding domain at a pH of about 4.0 to about 6.5 (e.g., any of the subranges of this range described herein) is no more than 3-fold (e.g., no more than 2.8-fold, no more than 2.6-fold, no more than 2.5-fold, no more than 2.4-fold, no more than 2.2-fold, no more than 2.0-fold, no more than 1.8-fold, no more than 1.6-fold, no more than 1.5-fold, no more than 1.4-fold, no more than 1.2-fold, no more than 1.0-fold, no more than 0.8-fold, no more than 0.6-fold, no more than 0.5-fold, no more than 0.4-fold, no more than 0.3-fold no more than 0.2-fold, or no more than 0.1-fold) faster than the dissociation rate at a pH of about 7.0 to about 8.0 (e.g., any of the subranges of this range described herein); or (b) the

dissociation constant (K_D) of the first antigen-binding domain at a pH of about 4.0 to about 6.5 (e.g., any of the subranges of this range described herein) is no more than 3-fold (e.g., no more than 2.8-fold, no more than 2.6-fold, no more than 2.5-fold, no more than 2.4-fold, no more than 2.2-fold, no more than 2.0-fold, no more than 1.8-fold, no more than 1.6-fold, no more than 1.5-fold, no more than 1.4-fold, no more than 1.2-fold, no more than 1.0-fold, no more than 0.8-fold, no more than 0.6-fold, no more than 0.5-fold, no more than 0.4-fold, no more than 0.3-fold no more than 0.2-fold, or no more than 0.1-fold) greater than the K_D at a pH of about 7.0 to about 8.0 (e.g., any of the subranges of this range described herein); (ii) samrotamab; (iii) hu139.10; (iv) huAD208.4.1 and/or (v) huAD208.12.1.

The term "extracellular space" means the liquid exterior to the plasma membrane of a mammalian cell. When a mammalian cell is *in vitro*, the extracellular space can be a liquid culture medium. When a mammalian cell is *in vivo*, the extracellular space can be, e.g., plasma, serum, blood, interstitial fluid, or lymph.

The term "endolysosomal space" means the fluid encapsulated by the vesicles and organelles that make-up the endosomal/lysosomal pathway in a mammalian cell.

The phrase "a reduced level" or "a decreased level" can be a reduction or decrease of at least a 1% (e.g., at least 2%, at least 4%, at least 6%, at least 8%, at least 10%, at least 12%, at least 14%, at least 16%, at least 18%, at least 20%, at least 22%, at least 24%, at least 26%, at least 30%, at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, or at least 99%) reduction as compared to a reference level or value.

The term "cell killing potency" refers to the ability of an agent (e.g., any of the ABPCs described herein) to induce, directly or indirectly, the apoptosis and/or necrosis of a mammalian cell (e.g., a cancer cell), measured as a rate over time or at a relevant timepoint. Methods for determining the cell killing potency of a cell are known in the art (e.g., trypan blue staining, microscopy, fluorescence-assisted cell sorting, and assays to detect markers of apoptosis (e.g., Annexin V)). In non-limiting examples, cell killing potency can be measured, e.g., by cell killing at a single concentration of an agent, by the IC50 of the agent (i.e. the concentration of the agent whereby half the maximal cell killing potency is achieved), or by the ratio of an agent's dissociation constant KD on mammalian cells divided by its IC50. In some non-limiting examples, the IC50s and/or the KD ratios described herein are compared to those of a control

ABPC (as defined herein), and, optionally, demonstrate that the ABPCs described herein have a higher cell killing potency as compared to the control ABPC.

The term "toxin liberation" refers to the ability of a mammalian cell (e.g., a non-cancerous mammalian cell or a cancer cell) to internalize (e.g., via pinocytosis and/or receptor-mediated endocytosis) any of the ABPCs described herein (e.g., any of ABPCs or control ABPCs described herein) that are conjugated to a toxin, and subsequently release the toxin conjugated to the ABPC, measured as a rate over time or at a specific timepoint. Toxin liberation can be assessed using a variety of different exemplary assays, e.g., ELISA, immunofluorescence, cell killing assays, cell cycle arrest assays, DNA damage assays, mass spectrometry, HPLC, and/or an isotope-labeled toxin.

The phrase "target cell" or "target mammalian cell" or "mammalian target cell" means a mammalian cell that has at least one LRRC15 present on its surface. In some examples, a mammalian target cell can be a cancer cell. In some embodiments of a target mammalian cell can have a total of about 1 to about 10,000,000, about 1 to about 9,000,000, about 1 to about 8,000,000, about 1 to about 7,000,000, about 1 to about 6,000,000, about 1 to about 5,000,000, about 1 to about 4,000,000, about 1 to about 3,000,000, about 1 to about 2,000,000, about 1 to about 1,000,000, about 1 to about 800,000, about 1 to about 600,000, about 1 to about 400,000, about 1 to about 200,000, about 1 to about 100,000, about 1 to about 80,000, about 1 to about 80,000, about 1 to about 75,000, about 1 to about 70,000, about 1 to about 65,000, about 1 to about 60,000, about 1 to about 55,000, about 1 to about 50,000, about 1 to about 45,000, about 1 to about 40,000, about 1 to about 35,000, about 1 to about 30,000, about 1 to about 25,000, about 1 to about 20,000, about 1 to about 15,000, about 1 to about 10,000, about 1 to about 7,500, about 1 to about 5,000, about 1 to about 4,000, about 1 to about 3,000, about 1 to about 2,000, about 1 to about 1,000, about 1 to about 500, about 1 to about 100, about 1 to about 50, about 1 to about 10, about 10 to about 10,000,000, about 10 to about 9,000,000, about 10 to about 8,000,000, about 10 to about 7,000,000, about 10 to about 6,000,000, about 10 to about 5,000,000, about 10 to about 4,000,000, about 10 to about 3,000,000, about 10 to about 2,000,000, about 10 to about 1,000,000, about 10 to about 800,000, about 10 to about 600,000, about 10 to about 400,000, about 10 to about 200,000, about 10 to about 100,000, about 10 to about 80,000, about 10 to about 80,000, about 10 to about 75,000, about 10 to about 70,000, about 10 to about 65,000, about 10 to about 60,000, about 10 to about 55,000, about 10 to about

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The phrase "antigen density" means the number of LRRC15 present on the surface of a target mammalian cell or the average number of LRRC15 on the surface of a population of particular type of target mammalian cells. It can be measured, e.g., using the Quantibright bead kit or radiolabel (e.g., BD Biosciences PE Phycoerythrin Fluorescence Quantitation Kit, catalog #340495).

The phrase "amino acid substituted with a histidine" means the substitution of an amino acid residue that is not histidine in a reference polypeptide sequence with a histidine. Non-limiting methods for substituting an amino acid residue in a reference polypeptide with a histidine are described herein. Additional methods for substituting an amino acid residue in a reference polypeptide with a histidine are known in the art.

The phrase "amino acid substituted with an alanine" means the substitution of an amino acid residue that is a histidine in a reference polypeptide sequence with an alanine. Non-limiting methods for substituting a histidine in a reference polypeptide with an alanine are described herein. Additional methods for substituting an histidine in a reference polypeptide with an alanine are known in the art.

Unless otherwise defined, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this invention belongs. Methods and materials are described herein for use in the present invention; other, suitable methods and materials known in the art can also be used. The materials, methods, and examples are illustrative only and not intended to be limiting. All publications, patent applications, patents, sequences, database entries, and other references mentioned herein are incorporated by reference in their entirety. In case of conflict, the present specification, including definitions, will control.

Other features and advantages of the invention will be apparent from the following detailed description and figures, and from the claims.

BRIEF DESCRIPTION OF DRAWINGS

Figure 1: SDS PAGE for SAMROTAMAB histidine scanning and alanine scanning. Expi293 cell culture supernatants post-harvest were loaded on non-reduced SDS PAGE gels to confirm expression of SAMROTAMAB and histidine scanning and alanine scanning variants. Arrows show the corresponding size for an IgG on a non-reduced SDS PAGE gel. MYT0963 is SAMROTAMAB and the rest of the lanes (MYT0964 – MYT1003) are SAMROTAMAB heavy chain histidine scanning and alanine scanning variants.

Figures 2a to 2ao: Binding of SAMROTAMAB starting ABPC and histidine scanning and alanine scanning variants to LRRC15 by biolayer interferometry. MYT0963 (SAMROTAMAB) and MYT0964 – MYT1003, heavy chain histidine scanning and alanine scanning variants, were captured on anti-human Fc biosensors and associated with LRRC15 at low pH or high pH, as specified in the figures.

Figure 3: Construct identifier to SEQ ID NO correspondence table. Constructs, heavy chain histidine scanning and alanine scanning variants, are listed in the first column of the table, SEQ ID NOs are listed and correspond to constructs on the left and the appropriate heavy chain and/or light chain categories along the top.

Figures 4: SDS PAGE for SAMROTAMAB histidine scanning and alanine scanning. Expi293 cell culture supernatants post-harvest were loaded on non-reduced SDS PAGE gels to confirm expression of SAMROTAMAB and histidine scanning and alanine scanning variants. Arrows show the corresponding size for an IgG on a non-reduced SDS PAGE gel. MYT2726 – MYT2752 are SAMROTAMAB light chain histidine scanning and alanine scanning variants.

Figures 5a to 5aa: Binding of SAMROTAMAB starting ABPC and histidine scanning and alanine scanning variants to LRRC15 by biolayer interferometry. MYT2726 – MYT2752, light chain histidine scanning and alanine scanning variants of SAMROTAMAB, were captured on anti-human Fc biosensors and associated with LRRC15 at low pH or high pH, as specified in the figures.

Figure 6: Construct identifier to SEQ ID NO correspondence table. Constructs, light chain histidine scanning and alanine scanning variants, are listed in the first column of the table,

SEQ ID NOs are listed and correspond to constructs on the left and the appropriate heavy chain and/or light chain categories along the top.

Figure 7: SDS PAGE for SAMROTAMAB histidine scanning and alanine scanning. Expi293 cell culture supernatants post-harvest were loaded on non-reduced SDS PAGE gels to confirm expression of SAMROTAMAB histidine scanning and alanine scanning variants. Arrows show the corresponding size for an IgG on a non-reduced SDS PAGE gel. MYT2722 – MYT2725 are SAMROTAMAB heavy chain combinations histidine scanning and alanine scanning variants.

Figures 8a to 8d: Binding of histidine scanning and alanine scanning variants of SAMROTAMAB to LRRC15 by biolayer interferometry. MYT2722 – MYT2725, heavy chain combination histidine scanning and alanine scanning variants of SAMROTAMAB, were captured on anti-human Fc biosensors and associated with LRRC15 at low pH or high pH, as specified in the figures.

Figure 9: Construct identifier to SEQ ID NO correspondence table. Constructs, heavy chain combinations histidine scanning and alanine scanning variants, are listed in the first column of the table, SEQ ID NOs are listed and correspond to constructs on the left and the appropriate heavy chain and/or light chain categories along the top.

Figures 10: SDS PAGE for hu139.10 histidine scanning and alanine scanning. Expi293 cell culture supernatants post-harvest were loaded on non-reduced SDS PAGE gels to confirm expression of hu139.10 and histidine scanning and alanine scanning variants. Arrows show the corresponding size for an IgG on a non-reduced SDS PAGE gel. MYT3252 is hu139.10 and the rest of the lanes (MYT3253 – MYT3292) are hu139.10 heavy chain histidine scanning and alanine scanning variants.

Figures 11a to 11ao: Binding of hu139.10 starting ABPC and histidine scanning and alanine scanning variants to LRRC15 by biolayer interferometry. MYT3252 (hu139.10) and MYT3253 – MYT3292, heavy chain histidine scanning and alanine scanning variants of hu139.10, were captured on anti-human Fc biosensors and associated with LRRC15 at low pH or high pH, as specified in the figures.

Figure 12: Construct identifier to SEQ ID NO correspondence table. Constructs, heavy chain histidine scanning and alanine scanning variants, are listed in the first column of the

table, SEQ ID NOs are listed and correspond to constructs on the left and the appropriate heavy chain and/or light chain categories along the top.

Figures 13: SDS PAGE for hu139.10 histidine scanning and alanine scanning. Expi293 cell culture supernatants post-harvest were loaded on non-reduced SDS PAGE gels to confirm expression of hu139.10 and histidine scanning and alanine scanning variants. Arrows show the corresponding size for an IgG on a non-reduced SDS PAGE gel. MYT3293 – MYT3324 are hu139.10 light chain histidine scanning and alanine scanning variants.

Figures 14a to 14af: Binding of hu139.10 starting ABPC and histidine scanning and alanine scanning variants to LRRC15 by biolayer interferometry. MYT3293 – MYT3324, light chain histidine scanning and alanine scanning variants of hu139.10, were captured on anti-human Fc biosensors and associated with LRRC15 at low pH or high pH, as specified in the figures.

Figure 15: Construct identifier to SEQ ID NO correspondence table. Constructs, light chain histidine scanning and alanine scanning variants, are listed in the first column of the table, SEQ ID NOs are listed and correspond to constructs on the left and the appropriate heavy chain and/or light chain categories along the top.

Figures 16: SDS PAGE for hu139.10 histidine scanning and alanine scanning. Expi293 cell culture supernatants post-harvest were loaded on non-reduced SDS PAGE gels to confirm expression of hu139.10 histidine scanning and alanine scanning variants. Arrows show the corresponding size for an IgG on a non-reduced SDS PAGE gel. MYT4161 – MYT4164 are hu139.10 heavy chain combinations histidine scanning and alanine scanning variants.

Figures 17a to 17d: Binding of histidine scanning and alanine scanning variants of hu139.10 to LRRC15 by biolayer interferometry. MYT4161 – MYT4164, heavy chain combination histidine scanning and alanine scanning variants, were captured on anti-human Fc biosensors and associated with LRRC15 at low pH or high pH, as specified in the figures.

Figure 18: Construct identifier to SEQ ID NO correspondence table. Constructs, heavy chain combinations histidine scanning and alanine scanning variants, are listed in the first column of the table, SEQ ID NOs are listed and correspond to constructs on the left and the appropriate heavy chain and/or light chain categories along the top.

Figures 19: SDS PAGE for hu139.10 histidine scanning and alanine scanning. Expi293 cell culture supernatants post-harvest were loaded on non-reduced SDS PAGE gels to

confirm expression of hu139.10 histidine scanning and alanine scanning variants. Arrows show the corresponding size for an IgG on a non-reduced SDS PAGE gel. MYT4165 – MYT4174 are hu139.10 light chain combinations histidine scanning and alanine scanning variants.

Figures 20a to 20j: Binding of histidine scanning and alanine scanning variants of hu139.10 to LRRC15 by biolayer interferometry. MYT4165 – MYT4174, light chain combination histidine scanning and alanine scanning variants, were captured on anti-human Fc biosensors and associated with LRRC15 at low pH or high pH, as specified in the figures.

Figure 21: Construct identifier to SEQ ID NO correspondence table. Constructs, light chain combinations histidine scanning and alanine scanning variants, are listed in the first column of the table, SEQ ID NOs are listed and correspond to constructs on the left and the appropriate heavy chain and/or light chain categories along the top.

Figures 22: SDS PAGE for huAD208.4.1 histidine scanning and alanine scanning. Expi293 cell culture supernatants post-harvest were loaded on non-reduced SDS PAGE gels to confirm expression of huAD208.4.1 and histidine scanning and alanine scanning variants. Arrows show the corresponding size for an IgG on a non-reduced SDS PAGE gel. MYT3325 is huAD208.4.1 and the rest of the lanes (MYT3326 – MYT3367) are huAD208.4.1 heavy chain histidine scanning and alanine scanning variants.

Figures 23a to 23aq: Binding of huAD208.4.1 starting ABPC and histidine scanning and alanine scanning variants to LRRC15 by biolayer interferometry. MYT3325 (huAD208.4.1) and MYT3326 – MYT3367, heavy chain histidine scanning and alanine scanning variants, were captured on anti-human Fc biosensors and associated with LRRC15 at low pH or high pH, as specified in the figures.

Figure 24: Construct identifier to SEQ ID NO correspondence table. Constructs, heavy chain histidine scanning and alanine scanning variants, are listed in the first column of the table, SEQ ID NOs are listed and correspond to constructs on the left and the appropriate heavy chain and/or light chain categories along the top.

Figures 25: SDS PAGE for huAD208.4.1 histidine scanning and alanine scanning. Expi293 cell culture supernatants post-harvest were loaded on non-reduced SDS PAGE gels to confirm expression of huAD208.4.1 and histidine scanning and alanine scanning variants. Arrows show the corresponding size for an IgG on a non-reduced SDS PAGE gel. MYT3369 – MYT3398 are huAD208.4.1 light chain histidine scanning and alanine scanning variants.

Figures 26a to 26ad: Binding of huAD208.4.1 starting ABPC and histidine scanning and alanine scanning variants to LRRC15 by biolayer interferometry. MYT3369 – MYT3398, light chain histidine scanning and alanine scanning variants of huAD208.4.1, were captured on anti-human Fc biosensors and associated with LRRC15 at low pH or high pH, as specified in the figures.

Figure 27: Construct identifier to SEQ ID NO correspondence table. Constructs, light chain histidine scanning and alanine scanning variants, are listed in the first column of the table, SEQ ID NOs are listed and correspond to constructs on the left and the appropriate heavy chain and/or light chain categories along the top.

Figures 28: SDS PAGE for huAD208.4.1 histidine scanning and alanine scanning. Expi293 cell culture supernatants post-harvest were loaded on non-reduced SDS PAGE gels to confirm expression of huAD208.4.1 histidine scanning and alanine scanning variants. Arrows show the corresponding size for an IgG on a non-reduced SDS PAGE gel. MYT4385 – MYT4388 are huAD208.4.1 heavy chain combinations histidine scanning and alanine scanning variants.

Figures 29a to 29d: Binding of histidine scanning and alanine scanning variants of huAD208.4.1 to LRRC15 by biolayer interferometry. MYT4385 – MYT4388, heavy chain combination histidine scanning and alanine scanning variants of huAD208.4.1, were captured on anti-human Fc biosensors and associated with LRRC15 at low pH or high pH, as specified in the figures.

Figure 30: Construct identifier to SEQ ID NO correspondence table. Constructs, heavy chain combinations histidine scanning and alanine scanning variants, are listed in the first column of the table, SEQ ID NOs are listed and correspond to constructs on the left and the appropriate heavy chain and/or light chain categories along the top.

Figures 31: SDS PAGE for huAD208.4.1 histidine scanning and alanine scanning. Expi293 cell culture supernatants post-harvest were loaded on non-reduced SDS PAGE gels to confirm expression of huAD208.4.1 histidine scanning and alanine scanning variants. Arrows show the corresponding size for an IgG on a non-reduced SDS PAGE gel. MYT4390 – MYT4399 are huAD208.4.1 light chain combinations histidine scanning and alanine scanning variants.

Figures 32a to 32j: Binding of histidine scanning and alanine scanning variants of huAD208.4.1 to LRRC15 by biolayer interferometry. MYT4390 – MYT4399, light chain combination histidine scanning and alanine scanning variants of huAD208.4.1, were captured on anti-human Fc biosensors and associated with LRRC15 at low pH or high pH, as specified in the figures.

Figure 33: Construct identifier to SEQ ID NO correspondence table. Constructs, light chain combinations histidine scanning and alanine scanning variants, are listed in the first column of the table, SEQ ID NOs are listed and correspond to constructs on the left and the appropriate heavy chain and/or light chain categories along the top.

Figures 34: SDS PAGE for huAD208.12.1 histidine scanning and alanine scanning. Expi293 cell culture supernatants post-harvest were loaded on non-reduced SDS PAGE gels to confirm expression of huAD208.12.1 and histidine scanning and alanine scanning variants. Arrows show the corresponding size for an IgG on a non-reduced SDS PAGE gel. MYT3179 is huAD208.12.1 and the rest of the lanes (MYT4090 – MYT4133) are huAD208.12.1 heavy chain histidine scanning and alanine scanning variants.

Figures 35a to 35as: Binding of huAD208.12.1 starting ABPC and histidine scanning and alanine scanning variants to LRRC15 by biolayer interferometry. MYT3179 (huAD208.12.1) and MYT4090 – MYT4133, heavy chain histidine scanning and alanine scanning variants, were captured on anti-human Fc biosensors and associated with LRRC15 at pH 7.4. Dissociation was at pH 7.4 (black trace) or pH 5.4 (grey trace).

Figure 36: Construct identifier to SEQ ID NO correspondence table. Constructs, heavy chain histidine scanning and alanine scanning variants, are listed in the first column of the table, SEQ ID NOs are listed and correspond to constructs on the left and the appropriate heavy chain and/or light chain categories along the top.

Figures 37: SDS PAGE for huAD208.12.1 histidine scanning and alanine scanning. Expi293 cell culture supernatants post-harvest were loaded on non-reduced SDS PAGE gels to confirm expression of huAD208.12.1 and histidine scanning and alanine scanning variants. Arrows show the corresponding size for an IgG on a non-reduced SDS PAGE gel. MYT4134 – MYT4160 are huAD208.12.1 light chain histidine scanning and alanine scanning variants.

Figures 38a to 38aa: Binding of huAD208.12.1 starting ABPC and histidine scanning and alanine scanning variants to LRRC15 by biolayer interferometry. MYT4134

– MYT4160, light chain histidine scanning and alanine scanning variants of huAD208.12.1, were captured on anti-human Fc biosensors and associated with LRRC15 at pH 7.4. Dissociation was at pH 7.4 (black trace) or pH 5.4 (grey trace).

Figure 39: Construct identifier to SEQ ID NO correspondence table. Constructs, light chain histidine scanning and alanine scanning variants, are listed in the first column of the table, SEQ ID NOs are listed and correspond to constructs on the left and the appropriate heavy chain and/or light chain categories along the top.

Figures 40a - 40b: Characterization of binding affinity for anti-LRRC15 mAbs. Anti-LRRC15 mAbs were assayed for their binding to U-87 MG (LRRC15+) cells. Figure 40a shows MYT0963 (samrotamab) with an IC50 of 0.228 nM, Figure 40b shows MYT0971 with an IC50 of 0.484 nM.

Figures 41a - 41g: Internalization of anti-LRRC15 mAbs in cells. Anti-LRRC15 pH engineered antibody variants, corresponding starting ABPC antibody, control IgG1 isotype control (BP0297, Bioxcell), along with a vehicle control, as specified in Figure 41 were assayed for internalization and endolysosomal delivery as measured by mean fluorescence intensity on cells, at 25nM after 24 hours. Error bars represent standard deviation where present. Numbers above the bars represent fold change over the corresponding starting ABPC.

Figure 42: Melting temperature of select anti-LRRC15 mAbs. Selected anti-LRRC15 mAbs listed in the table were assayed for their melting temperature by Differential Scanning Fluorimetry (DSF), and the resulting Sypro Orange signal was plotted as its first derivative. Melting temperature (Tm) was calculated as the local maxima of this graph and is shown in the table.

Figure 43: SDS PAGE for MYT0766. Purified MYT0766 was loaded as non-reduced (NR) and reduced (R) onto an SDS PAGE gel to confirm size and purity. Theoretical molecular weight of intact MYT0766 is approximately 109 kDa.

DETAILED DESCRIPTION

Provided herein are antigen-binding protein constructs (ABPCs) and antibodies that include: a first antigen-binding domain that is capable of specifically binding LRRC15 or an epitope of LRRC15 presented on the surface of a target mammalian cell, where: (a) the dissociation rate of the first antigen-binding domain at a pH of about 4.0 to about 6.5 is faster

than the dissociation rate at a pH of about 7.0 to about 8.0; and/or (b) the dissociation constant (K_D) of the first antigen-binding domain at a pH of about 4.0 to about 6.5 is greater than the K_D at a pH of about 7.0 to about 8.0. In some examples of these ABPCs, the ABPC is degraded in the target mammalian cell following internalization of the ABPC by the target mammalian cell. Some examples of any of the ABPCs described herein can further include a conjugated toxin, radioisotope, drug, or small molecule (e.g., a fluorophore or dye).

Also provided are antigen-binding protein constructs (ABPCs) and antibodies that include: a first antigen-binding domain that is capable of specifically binding LRRC15 or an epitope of LRRC15 presented on the surface of a target mammalian cell; and a conjugated toxin, radioisotope, drug, or small molecule, where: (a) the dissociation rate of the first antigen-binding domain at a pH of about 4.0 to about 6.5 is faster than the dissociation rate at a pH of about 7.0 to about 8.0; and/or the dissociation constant (K_D) of the first antigen-binding domain at a pH of about 4.0 to about 6.5 is greater than the K_D at a pH of about 7.0 to about 8.0; and (b) a composition including the ABPC provides for one or more (e.g., two or three) of: an increase (e.g., a detectable increase) in toxin liberation in the target mammalian cell as compared to a composition comprising the same amount of a control ABPC; an increase (e.g., a detectable increase) in target mammalian cell killing as compared to a composition comprising the same amount of a control ABPC; and an increase (e.g., a detectable increase) in endolysosomal delivery in the target mammalian cell as compared to a composition comprising the same amount of a control ABPC.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of samrotamab with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acids substituted with a histidine. In some examples of any of the ABPCs described herein, the first antigen-binding domain includes a light chain variable domain of samrotamab with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acids substituted with a histidine. In some examples of any of the ABPCs described herein, the first antigen-binding domain includes a heavy chain variable domain of samrotamab with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty)

amino acids substituted with a histidine; and a light chain variable domain of samrotamab with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acids substituted with a histidine. In some examples of any of the ABPCs described herein, the heavy chain variable domain of samrotamab comprises SEQ ID NO: 1. In some examples of any of the ABPCs described herein, the light chain variable domain of samrotamab comprises SEQ ID NO: 2.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a heavy chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 3, SEQ ID NO: 4, and SEQ ID NO: 5, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 3-5 substituted with a histidine. In some examples of any of the ABPCs described herein, the first antigen-binding domain comprises a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 6, SEQ ID NO: 7, and SEQ ID NO: 8, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 6-8 substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes: a heavy chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 3, SEQ ID NO: 4, and SEQ ID NO: 5, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 3-5 substituted with a histidine; and a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 6, SEQ ID NO: 7, and SEQ ID NO: 8, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 6-8 substituted with a histidine.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 1 selected from the group consisting of: 33, 34, 50, 52, 57, 59, 100, 102, 103, 107, 108, or 109 . In some examples of any

of the ABPCs described herein, the first antigen-binding domain includes a light chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 2, where the light chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 2 selected from the group consisting of: 32, 34, 50, 51, 89, 90, 92, 93, 94, or 96. In some examples of any of the ABPCs and antibodies described herein the first antigen-binding domain includes: a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 1 selected from the group consisting of: 33, 34, 50, 52, 57, 59, 100, 102, 103, 107, 108, or 109, and a light chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 2, where the light chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 2 selected from the group consisting of: 32, 34, 50, 51, 89, 90, 92, 93, 94, or 96.

In some examples of any of the ABPCs and antibodies described herein, a heavy chain variable domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 1 listed in Table 1.

Table 1. Exemplary Combinations of Amino Acid Positions in SEQ ID NO: 1 that can be Substituted with Histidine

33 + 34, 33 + 50, 33 + 52, 33 + 57, 33 + 59, 33 + 100, 33 + 102, 33 + 103, 33 + 107, 33 + 108, 33 + 109, 34 + 50, 34 + 52, 34 + 57, 34 + 59, 34 + 100, 34 + 102, 34 + 103, 34 + 107, 34 + 108, 34 + 109, 50 + 52, 50 + 57, 50 + 59, 50 + 100, 50 + 102, 50 + 103, 50 + 107, 50 + 108,

50 + 109, 52 + 57, 52 + 59, 52 + 100, 52 + 102, 52 + 103, 52 + 107, 52 + 108, 52 + 109, 57 + 59, 57 + 100, 57 + 102, 57 + 103, 57 + 107, 57 + 108, 57 + 109, 59 + 100, 59 + 102, 59 + 103, 59 + 107, 59 + 108, 59 + 109, 100 + 102, 100 + 103, 100 + 107, 100 + 108, 100 + 109, 102 + 103, 102 + 107, 102 + 108, 102 + 109, 103 + 107, 103 + 108, 103 + 109, 107 + 108, 107 + 109, 108 + 109, 33 + 34 + 50, 33 + 34 + 52, 33 + 34 + 57, 33 + 34 + 59, 33 + 34 + 100, 33 + 34 + 102, 33 + 34 + 103, 33 + 34 + 107, 33 + 34 + 108, 33 + 34 + 109, 33 + 50 + 52, 33 + 50 + 57, 33 + 50 + 59, 33 + 50 + 100, 33 + 50 + 102, 33 + 50 + 103, 33 + 50 + 107, 33 + 50 + 108, 33 + 50 + 109, 34 + 50 + 52, 34 + 50 + 57, 34 + 50 + 59, 34 + 50 + 100, 34 + 50 + 102, 34 + 50 + 103, 34 + 50 + 107, 34 + 50 + 108, 34 + 50 + 109, 33 + 52 + 57, 33 + 52 + 59, 33 + 52 + 100, 33 + 52 + 102, 33 + 52 + 103, 33 + 52 + 107, 33 + 52 + 108, 33 + 52 + 109, 34 + 52 + 57, 34 + 52 + 59, 34 + 52 + 100, 34 + 52 + 102, 34 + 52 + 103, 34 + 52 + 107, 34 + 52 + 108, 34 + 52 + 109, 50 + 52 + 57, 50 + 52 + 59, 50 + 52 + 100, 50 + 52 + 102, 50 + 52 + 103, 50 + 52 + 107, 50 + 52 + 108, 50 + 52 + 109, 33 + 57 + 59, 33 + 57 + 100, 33 + 57 + 102, 33 + 57 + 103, 33 + 57 + 107, 33 + 57 + 108, 33 + 57 + 109, 34 + 57 + 59, 34 + 57 + 100, 34 + 57 + 102, 34 + 57 + 103, 34 + 57 + 107, 34 + 57 + 108, 34 + 57 + 109, 50 + 57 + 59, 50 + 57 + 100, 50 + 57 + 102, 50 + 57 + 103, 50 + 57 + 107, 50 + 57 + 108, 50 + 57 + 109, 52 + 57 + 59, 52 + 57 + 100, 52 + 57 + 102, 52 + 57 + 103, 52 + 57 + 107, 52 + 57 + 108, 52 + 57 + 109, 33 + 59 + 100, 33 + 59 + 102, 33 + 59 + 103, 33 + 59 + 107, 33 + 59 + 108, 33 + 59 + 109, 34 + 59 + 100, 34 + 59 + 102, 34 + 59 + 103, 34 + 59 + 107, 34 + 59 + 108, 34 + 59 + 109, 50 + 59 + 100, 50 + 59 + 102, 50 + 59 + 103, 50 + 59 + 107, 50 + 59 + 108, 50 + 59 + 109, 52 + 59 + 100, 52 + 59 + 102, 52 + 59 + 103, 52 + 59 + 107, 52 + 59 + 108, 52 + 59 + 109, 57 + 59 + 100, 57 + 59 + 102, 57 + 59 + 103, 57 + 59 + 107, 57 + 59 + 108, 57 + 59 + 109, 33 + 100 + 102, 33 + 100 + 103, 33 + 100 + 107, 33 + 100 + 108, 33 + 100 + 109, 34 + 100 + 102, 34 + 100 + 103, 34 + 100 + 107, 34 + 100 + 108, 34 + 100 + 109, 50 + 100 + 102, 50 + 100 + 103, 50 + 100 + 107, 50 + 100 + 108, 50 + 100 + 109, 52 + 100 + 102, 52 + 100 + 103, 52 + 100 + 107, 52 + 100 + 108, 52 + 100 + 109, 57 + 100 + 102, 57 + 100 + 103, 57 + 100 + 107, 57 + 100 + 108, 57 + 100 + 109, 59 + 100 + 102, 59 + 100 + 103, 59 + 100 + 107, 59 + 100 + 108, 59 + 100 + 109, 33 + 102 + 103, 33 + 102 + 107, 33 + 102 + 108, 33 + 102 + 109, 34 + 102 + 103, 34 + 102 + 107, 34 + 102 + 108, 34 + 102 + 109, 50 + 102 + 103, 50 + 102 + 107, 50 + 102 + 108, 50 + 102 + 109, 52 + 102 + 103, 52 + 102 + 107, 52 + 102 + 108, 52 + 102 + 109,

57 + 102 + 103, 57 + 102 + 107, 57 + 102 + 108, 57 + 102 + 109, 59 + 102 + 103, 59 + 102 + 107, 59 + 102 + 108, 59 + 102 + 109, 100 + 102 + 103, 100 + 102 + 107, 100 + 102 + 108, 100 + 102 + 109, 33 + 103 + 107, 33 + 103 + 108, 33 + 103 + 109, 34 + 103 + 107, 34 + 103 + 108, 34 + 103 + 109, 50 + 103 + 107, 50 + 103 + 108, 50 + 103 + 109, 52 + 103 + 107, 52 + 103 + 108, 52 + 103 + 109, 57 + 103 + 107, 57 + 103 + 108, 57 + 103 + 109, 59 + 103 + 107, 59 + 103 + 108, 59 + 103 + 109, 100 + 103 + 107, 100 + 103 + 108, 100 + 103 + 109, 102 + 103 + 107, 102 + 103 + 108, 102 + 103 + 109, 33 + 107 + 108, 33 + 107 + 109, 34 + 107 + 108, 34 + 107 + 109, 50 + 107 + 108, 50 + 107 + 109, 52 + 107 + 108, 52 + 107 + 109, 57 + 107 + 108, 57 + 107 + 109, 59 + 107 + 108, 59 + 107 + 109, 100 + 107 + 108, 100 + 107 + 109, 102 + 107 + 108, 102 + 107 + 109, 103 + 107 + 108, 103 + 107 + 109, 33 + 108 + 109, 34 + 108 + 109, 50 + 108 + 109, 52 + 108 + 109, 57 + 108 + 109, 59 + 108 + 109, 100 + 108 + 109, 102 + 108 + 109, 103 + 108 + 109, 107 + 108 + 109

In some examples of any of the ABPCs and antibodies described herein, a light chain variable domain includes a light chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 2, where the light chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 2 listed in Table 2.

Table 2. Exemplary Combinations of Amino Acid Positions in SEQ ID NO: 2 that can be Substituted with Histidine

32 + 34, 32 + 50, 32 + 51, 32 + 89, 32 + 90, 32 + 92, 32 + 93, 32 + 94, 32 + 96, 34 + 50, 34 + 51, 34 + 89, 34 + 90, 34 + 92, 34 + 93, 34 + 94, 34 + 96, 50 + 51, 50 + 89, 50 + 90, 50 + 92, 50 + 93, 50 + 94, 50 + 96, 51 + 89, 51 + 90, 51 + 92, 51 + 93, 51 + 94, 51 + 96, 89 + 90, 89 + 92, 89 + 93, 89 + 94, 89 + 96, 90 + 92, 90 + 93, 90 + 94, 90 + 96, 92 + 93, 92 + 94, 92 + 96, 93 + 94, 93 + 96, 94 + 96, 32 + 34 + 50, 32 + 34 + 51, 32 + 34 + 89, 32 + 34 + 90, 32 + 34 + 92, 32 + 34 + 93, 32 + 34 + 94, 32 + 34 + 96, 32 + 50 + 51, 32 + 50 + 89, 32 + 50 + 90, 32 + 50 + 92, 32 + 50 + 93, 32 + 50 + 94, 32 + 50 + 96, 32 + 51 + 89, 32 + 51 + 90, 32 + 51 + 92, 32 + 51 + 93, 32 + 51 + 94, 32 + 51 + 96, 32 + 89 + 90, 32 + 89 + 92, 32 + 89 + 93, 32 + 89 + 94, 32 + 89 + 96, 32 + 90 + 92, 32 + 90 + 93, 32 + 90 + 94, 32 + 90 + 96, 32 + 92 + 93, 32 +

92 + 94, 32 + 92 + 96, 32 + 93 + 94, 32 + 93 + 96, 32 + 94 + 96, 34 + 50 + 51, 34 + 50 + 89, 34 + 50 + 90, 34 + 50 + 92, 34 + 50 + 93, 34 + 50 + 94, 34 + 50 + 96, 34 + 51 + 89, 34 + 51 + 90, 34 + 51 + 92, 34 + 51 + 93, 34 + 51 + 94, 34 + 51 + 96, 34 + 89 + 90, 34 + 89 + 92, 34 + 89 + 93, 34 + 89 + 94, 34 + 89 + 96, 34 + 90 + 92, 34 + 90 + 93, 34 + 90 + 94, 34 + 90 + 96, 34 + 92 + 93, 34 + 92 + 94, 34 + 92 + 96, 34 + 93 + 94, 34 + 93 + 96, 34 + 94 + 96, 50 + 51 + 89, 50 + 51 + 90, 50 + 51 + 92, 50 + 51 + 93, 50 + 51 + 94, 50 + 51 + 96, 50 + 89 + 90, 50 + 89 + 92, 50 + 89 + 93, 50 + 89 + 94, 50 + 89 + 96, 50 + 90 + 92, 50 + 90 + 93, 50 + 90 + 94, 50 + 90 + 96, 50 + 92 + 93, 50 + 92 + 94, 50 + 92 + 96, 50 + 93 + 94, 50 + 93 + 96, 50 + 94 + 96, 51 + 89 + 90, 51 + 89 + 92, 51 + 89 + 93, 51 + 89 + 94, 51 + 89 + 96, 51 + 90 + 92, 51 + 90 + 93, 51 + 90 + 94, 51 + 90 + 96, 51 + 92 + 93, 51 + 92 + 94, 51 + 92 + 96, 51 + 93 + 94, 51 + 93 + 96, 51 + 94 + 96, 89 + 90 + 92, 89 + 90 + 93, 89 + 90 + 94, 89 + 90 + 96, 89 + 92 + 93, 89 + 92 + 94, 89 + 92 + 96, 89 + 93 + 94, 89 + 93 + 96, 89 + 94 + 96, 90 + 92 + 93, 90 + 92 + 94, 90 + 92 + 96, 90 + 93 + 94, 90 + 93 + 96, 90 + 94 + 96, 92 + 93 + 94, 92 + 93 + 96, 92 + 94 + 96, 93 + 94 + 96

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 1 listed in Table 1; and a light chain variable domain that that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 2, where the light chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 2 listed in Table 2.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain comprising SEQ ID NO: 2, and a heavy chain variable domain that is at least 90% identical (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more (e.g., two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NO: 1 listed in Table 1.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, wherein the light chain variable domain includes a histidine at position 32 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 1 listed in Table 1.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, wherein the light chain variable domain includes a histidine at position 34 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 1 listed in Table 1.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, wherein the light chain variable domain includes a histidine at position 50 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 1 listed in Table 1.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, wherein the light chain variable domain includes a histidine at position 51 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 1 listed in Table 1.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, wherein the light chain variable domain includes a histidine at position 89 in SEQ ID NO:

2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 1 listed in Table 1.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, wherein the light chain variable domain includes a histidine at position 90 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 1 listed in Table 1.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, wherein the light chain variable domain includes a histidine at position 92 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 1 listed in Table 1.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, wherein the light chain variable domain includes a histidine at position 93 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 1 listed in Table 1.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, wherein the light chain variable domain includes a histidine at position 94 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain

variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 1 listed in Table 1.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, wherein the light chain variable domain includes a histidine at position 96 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 1 listed in Table 1.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of samrotamab with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidine(s) substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain of samrotamab with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidine(s) substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of samrotamab with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidines substituted with an alanine; and a light chain variable domain of samrotamab with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidine(s) substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the heavy chain variable domain of samrotamab comprises SEQ ID NO: 1. In some examples of any of the ABPCs and antibodies described herein, the light chain variable domain of samrotamab comprises SEQ ID NO: 2.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a heavy chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 3, SEQ ID NO: 4, and SEQ ID NO: 5, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in

SEQ ID NOs: 3-5 substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 6, SEQ ID NO: 7, and SEQ ID NO: 8, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in SEQ ID NOs: 6-8 substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes: a heavy chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 3, SEQ ID NO: 4, and SEQ ID NO: 5, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in SEQ ID NOs: 3-5 substituted with an alanine; and a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 6, SEQ ID NO: 7, and SEQ ID NO: 8, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in SEQ ID NOs: 6-8 substituted with an alanine.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a heavy chain variable domain of SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain of SEQ ID NO: 2, SEQ ID NO: 53, SEQ ID NO: 54, SEQ ID NO: 55, SEQ ID NO: 56, SEQ ID NO: 57, SEQ ID NO: 58, SEQ ID NO: 59, SEQ ID NO: 60, SEQ ID NO: 61, SEQ ID NO: 62, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 66, SEQ ID NO: 67, SEQ ID NO: 68, SEQ ID NO: 69, SEQ ID NO: 70, SEQ ID NO: 71, SEQ ID NO: 72, SEQ ID NO: 73, SEQ ID NO: 74, SEQ ID NO: 75, SEQ ID NO: 76, SEQ ID NO: 77, SEQ ID NO: 78, or SEQ ID NO: 79.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 2, and a heavy chain variable domain comprising: SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 53, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 54, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 55, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 56, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 57, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 58, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 59, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 60, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 61, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 62, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 63, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 64, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 65, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 66, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 67, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 68, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 69, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 70, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 71, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 72 and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 73, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 74, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 75, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 76, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 77, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 78, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 79, and a heavy chain variable domain comprising: SEQ ID NO: 1, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, or SEQ ID NO: 52.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of SEQ ID NO: 80, SEQ ID NO: 81, SEQ ID NO: 82, or SEQ ID NO: 83.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain comprising SEQ ID NO: 80, and a light chain variable domain comprising SEQ ID NO: 2, SEQ ID NO: 53, SEQ ID NO: 54, SEQ ID NO: 55, SEQ ID NO: 56, SEQ ID NO: 57, SEQ ID NO: 58, SEQ ID NO: 59, SEQ ID NO: 60, SEQ ID NO: 61, SEQ ID NO: 62, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 66, SEQ ID NO: 67, SEQ ID NO: 68, SEQ ID NO: 69, SEQ ID NO: 70, SEQ ID NO: 71, SEQ ID NO: 72, SEQ ID NO: 73, SEQ ID NO: 74, SEQ ID NO: 75, SEQ ID NO: 76, SEQ ID NO: 77, SEQ ID NO: 78, or SEQ ID NO: 79.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain comprising SEQ ID NO: 81, and a light chain variable domain comprising SEQ ID NO: 2, SEQ ID NO: 53, SEQ ID NO: 54, SEQ ID NO: 55, SEQ ID NO: 56, SEQ ID NO: 57, SEQ ID NO: 58, SEQ ID NO: 59, SEQ ID NO: 60, SEQ ID NO: 61, SEQ ID NO: 62, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 66, SEQ ID NO: 67, SEQ ID NO: 68, SEQ ID NO: 69, SEQ ID NO: 70, SEQ ID NO: 71, SEQ ID NO: 72, SEQ ID NO: 73, SEQ ID NO: 74, SEQ ID NO: 75, SEQ ID NO: 76, SEQ ID NO: 77, SEQ ID NO: 78, or SEQ ID NO: 79.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain comprising SEQ ID NO: 82, and a light

chain variable domain comprising SEQ ID NO: 2, SEQ ID NO: 53, SEQ ID NO: 54, SEQ ID NO: 55, SEQ ID NO: 56, SEQ ID NO: 57, SEQ ID NO: 58, SEQ ID NO: 59, SEQ ID NO: 60, SEQ ID NO: 61, SEQ ID NO: 62, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 66, SEQ ID NO: 67, SEQ ID NO: 68, SEQ ID NO: 69, SEQ ID NO: 70, SEQ ID NO: 71, SEQ ID NO: 72, SEQ ID NO: 73, SEQ ID NO: 74, SEQ ID NO: 75, SEQ ID NO: 76, SEQ ID NO: 77, SEQ ID NO: 78, or SEQ ID NO: 79.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain comprising SEQ ID NO: 83, and a light chain variable domain comprising SEQ ID NO: 2, SEQ ID NO: 53, SEQ ID NO: 54, SEQ ID NO: 55, SEQ ID NO: 56, SEQ ID NO: 57, SEQ ID NO: 58, SEQ ID NO: 59, SEQ ID NO: 60, SEQ ID NO: 61, SEQ ID NO: 62, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 66, SEQ ID NO: 67, SEQ ID NO: 68, SEQ ID NO: 69, SEQ ID NO: 70, SEQ ID NO: 71, SEQ ID NO: 72, SEQ ID NO: 73, SEQ ID NO: 74, SEQ ID NO: 75, SEQ ID NO: 76, SEQ ID NO: 77, SEQ ID NO: 78, or SEQ ID NO: 79.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of a hu139.10 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acids substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain of hu139.10 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acids substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of hu139.10 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acids substituted with a histidine; and a light chain variable domain of hu139.10 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acids substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the heavy chain variable domain of hu139.10 comprises SEQ ID NO: 84. In

some examples of any of the ABPCs and antibodies described herein, the light chain variable domain of hu139.10 comprises SEQ ID NO: 85.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a heavy chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 86, SEQ ID NO: 87, and SEQ ID NO: 88, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 86-88 substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 89, SEQ ID NO: 90, and SEQ ID NO: 91, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 89-91 substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes: a heavy chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 86, SEQ ID NO: 87, and SEQ ID NO: 88, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 89-91 substituted with a histidine; and a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 89, SEQ ID NO: 90, and SEQ ID NO: 91, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 89-91 substituted with a histidine.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 84 selected from the group consisting of: 27, 29, 32, 50, 54, 58, 99, 100, 102, 104, or 105. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 85, where the light chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten,

eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 85 selected from the group of: 29, 31, 32, 34, 36, 37, 38, 40, 56, 60, 61, 95, 96, 97, or 100. In some examples of any of the ABPCs and antibodies described herein the first antigen-binding domain includes: a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 84 selected from the group consisting of: 27, 29, 32, 50, 54, 58, 99, 100, 102, 104, and 105, and a light chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 85, where the light chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 85 selected from the group consisting of: 29, 31, 32, 34, 36, 37, 38, 40, 56, 60, 61, 95, 96, 97, or 100.

In some examples of any of the ABPCs and antibodies described herein, a heavy chain variable domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 1, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes an alanine at position 35 in SEQ ID NO: 84.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes an alanine at position 98 in SEQ ID NO: 84.

In some examples of any of the ABPCs and antibodies described herein the first antigen-binding domain includes: a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84,

where the heavy chain variable domain includes an alanine at position 35 in SEQ ID NO: 84, and a light chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 85, where the light chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 85 selected from the group consisting of: 29, 31, 32, 34, 36, 37, 38, 40, 56, 60, 61, 95, 96, 97, or 100.

In some examples of any of the ABPCs and antibodies described herein the first antigen-binding domain includes: a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes an alanine at position 98 in SEQ ID NO: 84, and a light chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 85, where the light chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 85 selected from the group consisting of: 29, 31, 32, 34, 36, 37, 38, 40, 56, 60, 61, 95, 96, 97, or 100.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 84 selected from the group consisting of: 27, 29, 32, 50, 54, 58, 99, 100, 102, 104, or 105 and where the heavy chain variable domain includes an alanine at position 35 and/or 98 in SEQ ID NO: 84. In some examples of any of the ABPCs and antibodies described herein the first antigen-binding domain includes: a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 84 selected from the group consisting

of: 27, 29, 32, 50, 54, 58, 99, 100, 102, 104, or 105 and where the heavy chain variable domain includes an alanine at position 35 or 98 in SEQ ID NO: 84, and a light chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 85, where the light chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 85 selected from the group consisting of: 29, 31, 32, 34, 36, 37, 38, 40, 56, 60, 61, 95, 96, 97, or 100.

In some examples of any of the ABPCs and antibodies described herein, a heavy chain variable domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 1 and where the heavy chain variable domain includes an alanine at position 35 and/or 98 of SEQ ID NO: 84.

Table 3. Exemplary Combinations of Amino Acid Positions in SEQ ID NO: 84 that can be Substituted with Histidine

27 + 29, 27 + 32, 27 + 50, 27 + 54, 27 + 58, 27 + 99, 27 + 100, 27 + 102, 27 + 104, 27 + 105, 29 + 32, 29 + 50, 29 + 54, 29 + 58, 29 + 99, 29 + 100, 29 + 102, 29 + 104, 29 + 105, 32 + 50, 32 + 54, 32 + 58, 32 + 99, 32 + 100, 32 + 102, 32 + 104, 32 + 105, 50 + 54, 50 + 58, 50 + 99, 50 + 100, 50 + 102, 50 + 104, 50 + 105, 54 + 58, 54 + 99, 54 + 100, 54 + 102, 54 + 104, 54 + 105, 58 + 99, 58 + 100, 58 + 102, 58 + 104, 58 + 105, 99 + 100, 99 + 102, 99 + 104, 99 + 105, 100 + 102, 100 + 104, 100 + 105, 102 + 104, 102 + 105, 104 + 105, 27 + 29 + 32, 27 + 29 + 50, 27 + 29 + 54, 27 + 29 + 58, 27 + 29 + 99, 27 + 29 + 100, 27 + 29 + 102, 27 + 29 + 104, 27 + 29 + 105, 27 + 32 + 50, 27 + 32 + 54, 27 + 32 + 58, 27 + 32 + 99, 27 + 32 + 100, 27 + 32 + 102, 27 + 32 + 104, 27 + 32 + 105, 27 + 50 + 54, 27 + 50 + 58, 27 + 50 + 99, 27 + 50 + 100, 27 + 50 + 102, 27 + 50 + 104, 27 + 50 + 105, 27 + 54 + 58, 27 + 54 + 99, 27 + 54 + 100, 27 + 54 + 102, 27 + 54 + 104, 27 + 54 + 105, 27 + 58 + 99, 27 + 58 + 100, 27 + 58 + 102, 27 + 58 + 104, 27 + 58 + 105, 27 + 99 + 100, 27 + 99 + 102, 27 + 99 + 104, 27 + 99 + 105, 27 + 100 + 102, 27 + 100 + 104, 27 + 100 + 105, 27 + 102 + 104, 27 + 102 + 105, 27 + 104 + 105, 29 +

32 + 50, 29 + 32 + 54, 29 + 32 + 58, 29 + 32 + 99, 29 + 32 + 100, 29 + 32 + 102, 29 + 32 + 104, 29 + 32 + 105, 29 + 50 + 54, 29 + 50 + 58, 29 + 50 + 99, 29 + 50 + 100, 29 + 50 + 102, 29 + 50 + 104, 29 + 50 + 105, 29 + 54 + 58, 29 + 54 + 99, 29 + 54 + 100, 29 + 54 + 102, 29 + 54 + 104, 29 + 54 + 105, 29 + 58 + 99, 29 + 58 + 100, 29 + 58 + 102, 29 + 58 + 104, 29 + 58 + 105, 29 + 99 + 100, 29 + 99 + 102, 29 + 99 + 104, 29 + 99 + 105, 29 + 100 + 102, 29 + 100 + 104, 29 + 100 + 105, 29 + 102 + 104, 29 + 102 + 105, 29 + 104 + 105, 32 + 50 + 54, 32 + 50 + 58, 32 + 50 + 99, 32 + 50 + 100, 32 + 50 + 102, 32 + 50 + 104, 32 + 50 + 105, 32 + 54 + 58, 32 + 54 + 99, 32 + 54 + 100, 32 + 54 + 102, 32 + 54 + 104, 32 + 54 + 105, 32 + 58 + 99, 32 + 58 + 100, 32 + 58 + 102, 32 + 58 + 104, 32 + 58 + 105, 32 + 99 + 100, 32 + 99 + 102, 32 + 99 + 104, 32 + 99 + 105, 32 + 100 + 102, 32 + 100 + 104, 32 + 100 + 105, 32 + 102 + 104, 32 + 102 + 105, 32 + 104 + 105, 50 + 54 + 58, 50 + 54 + 99, 50 + 54 + 100, 50 + 54 + 102, 50 + 54 + 104, 50 + 54 + 105, 50 + 58 + 99, 50 + 58 + 100, 50 + 58 + 102, 50 + 58 + 104, 50 + 58 + 105, 50 + 99 + 100, 50 + 99 + 102, 50 + 99 + 104, 50 + 99 + 105, 50 + 100 + 102, 50 + 100 + 104, 50 + 100 + 105, 50 + 102 + 104, 50 + 102 + 105, 50 + 104 + 105, 54 + 58 + 99, 54 + 58 + 100, 54 + 58 + 102, 54 + 58 + 104, 54 + 58 + 105, 54 + 99 + 100, 54 + 99 + 102, 54 + 99 + 104, 54 + 99 + 105, 54 + 100 + 102, 54 + 100 + 104, 54 + 100 + 105, 54 + 102 + 104, 54 + 102 + 105, 54 + 104 + 105, 58 + 99 + 100, 58 + 99 + 102, 58 + 99 + 104, 58 + 99 + 105, 58 + 100 + 102, 58 + 100 + 104, 58 + 100 + 105, 58 + 102 + 104, 58 + 102 + 105, 58 + 104 + 105, 99 + 100 + 102, 99 + 100 + 104, 99 + 100 + 105, 99 + 102 + 104, 99 + 102 + 105, 99 + 104 + 105, 100 + 102 + 104, 100 + 102 + 105, 100 + 104 + 105, 102 + 104 + 105

In some examples of any of the ABPCs and antibodies described herein, a light chain variable domain includes a light chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 85, where the light chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 85 listed in Table 4.

Table 4. Exemplary Combinations of Amino Acid Positions in SEQ ID NO: 85 that can be Substituted with Histidine

29 + 31, 29 + 32, 29 + 34, 29 + 36, 29 + 37, 29 + 38, 29 + 40, 29 + 56, 29 + 60, 29 + 61, 29 + 95, 29 + 96, 29 + 97, 29 + 100, 31 + 32, 31 + 34, 31 + 36, 31 + 37, 31 + 38, 31 + 40, 31 + 56, 31 + 60, 31 + 61, 31 + 95, 31 + 96, 31 + 97, 31 + 100, 32 + 34, 32 + 36, 32 + 37, 32 + 38, 32 + 40, 32 + 56, 32 + 60, 32 + 61, 32 + 95, 32 + 96, 32 + 97, 32 + 100, 34 + 36, 34 + 37, 34 + 38, 34 + 40, 34 + 56, 34 + 60, 34 + 61, 34 + 95, 34 + 96, 34 + 97, 34 + 100, 36 + 37, 36 + 38, 36 + 40, 36 + 56, 36 + 60, 36 + 61, 36 + 95, 36 + 96, 36 + 97, 36 + 100, 37 + 38, 37 + 40, 37 + 56, 37 + 60, 37 + 61, 37 + 95, 37 + 96, 37 + 97, 37 + 100, 38 + 40, 38 + 56, 38 + 60, 38 + 61, 38 + 95, 38 + 96, 38 + 97, 38 + 100, 40 + 56, 40 + 60, 40 + 61, 40 + 95, 40 + 96, 40 + 97, 40 + 100, 56 + 60, 56 + 61, 56 + 95, 56 + 96, 56 + 97, 56 + 100, 60 + 61, 60 + 95, 60 + 96, 60 + 97, 60 + 100, 61 + 95, 61 + 96, 61 + 97, 61 + 100, 95 + 96, 95 + 97, 95 + 100, 96 + 97, 96 + 100, 97 + 100, 29 + 31 + 32, 29 + 31 + 34, 29 + 31 + 36, 29 + 31 + 37, 29 + 31 + 38, 29 + 31 + 40, 29 + 31 + 56, 29 + 31 + 60, 29 + 31 + 61, 29 + 31 + 95, 29 + 31 + 96, 29 + 31 + 97, 29 + 31 + 100, 29 + 32 + 34, 29 + 32 + 36, 29 + 32 + 37, 29 + 32 + 38, 29 + 32 + 40, 29 + 32 + 56, 29 + 32 + 60, 29 + 32 + 61, 29 + 32 + 95, 29 + 32 + 96, 29 + 32 + 97, 29 + 32 + 100, 29 + 34 + 36, 29 + 34 + 37, 29 + 34 + 38, 29 + 34 + 40, 29 + 34 + 56, 29 + 34 + 60, 29 + 34 + 61, 29 + 34 + 95, 29 + 34 + 96, 29 + 34 + 97, 29 + 34 + 100, 29 + 36 + 37, 29 + 36 + 38, 29 + 36 + 40, 29 + 36 + 56, 29 + 36 + 60, 29 + 36 + 61, 29 + 36 + 95, 29 + 36 + 96, 29 + 36 + 97, 29 + 36 + 100, 29 + 37 + 38, 29 + 37 + 40, 29 + 37 + 56, 29 + 37 + 60, 29 + 37 + 61, 29 + 37 + 95, 29 + 37 + 96, 29 + 37 + 97, 29 + 37 + 100, 29 + 38 + 40, 29 + 38 + 56, 29 + 38 + 60, 29 + 38 + 61, 29 + 38 + 95, 29 + 38 + 96, 29 + 38 + 97, 29 + 38 + 100, 29 + 40 + 56, 29 + 40 + 60, 29 + 40 + 61, 29 + 40 + 95, 29 + 40 + 96, 29 + 40 + 97, 29 + 40 + 100, 29 + 56 + 60, 29 + 56 + 61, 29 + 56 + 95, 29 + 56 + 96, 29 + 56 + 97, 29 + 56 + 100, 29 + 60 + 61, 29 + 60 + 95, 29 + 60 + 96, 29 + 60 + 97, 29 + 60 + 100, 29 + 61 + 95, 29 + 61 + 96, 29 + 61 + 97, 29 + 61 + 100, 29 + 95 + 96, 29 + 95 + 97, 29 + 95 + 100, 29 + 96 + 97, 29 + 96 + 100, 29 + 97 + 100, 31 + 32 + 34, 31 + 32 + 36, 31 + 32 + 37, 31 + 32 + 38, 31 + 32 + 40, 31 + 32 + 56, 31 + 32 + 60, 31 + 32 + 61, 31 + 32 + 95, 31 + 32 + 96, 31 + 32 + 97, 31 + 32 + 100, 31 + 34 + 36, 31 + 34 + 37, 31 + 34 + 38, 31 + 34 + 40, 31 + 34 + 56, 31 + 34 + 60, 31 + 34 + 61, 31 + 34 + 95, 31 + 34 + 96, 31 + 34 + 97, 31 + 34 + 100, 31 + 36 + 37, 31 + 36 + 38, 31 + 36 + 40, 31 + 36 + 56, 31 + 36 + 60,

31 + 36 + 61, 31 + 36 + 95, 31 + 36 + 96, 31 + 36 + 97, 31 + 36 + 100, 31 + 37 + 38, 31 + 37 + 40, 31 + 37 + 56, 31 + 37 + 60, 31 + 37 + 61, 31 + 37 + 95, 31 + 37 + 96, 31 + 37 + 97, 31 + 37 + 100, 31 + 38 + 40, 31 + 38 + 56, 31 + 38 + 60, 31 + 38 + 61, 31 + 38 + 95, 31 + 38 + 96, 31 + 38 + 97, 31 + 38 + 100, 31 + 40 + 56, 31 + 40 + 60, 31 + 40 + 61, 31 + 40 + 95, 31 + 40 + 96, 31 + 40 + 97, 31 + 40 + 100, 31 + 56 + 60, 31 + 56 + 61, 31 + 56 + 95, 31 + 56 + 96, 31 + 56 + 97, 31 + 56 + 100, 31 + 60 + 61, 31 + 60 + 95, 31 + 60 + 96, 31 + 60 + 97, 31 + 60 + 100, 31 + 61 + 95, 31 + 61 + 96, 31 + 61 + 97, 31 + 61 + 100, 31 + 95 + 96, 31 + 95 + 97, 31 + 95 + 100, 31 + 96 + 97, 31 + 96 + 100, 31 + 97 + 100, 32 + 34 + 36, 32 + 34 + 37, 32 + 34 + 38, 32 + 34 + 40, 32 + 34 + 56, 32 + 34 + 60, 32 + 34 + 61, 32 + 34 + 95, 32 + 34 + 96, 32 + 34 + 97, 32 + 34 + 100, 32 + 36 + 37, 32 + 36 + 38, 32 + 36 + 40, 32 + 36 + 56, 32 + 36 + 60, 32 + 36 + 61, 32 + 36 + 95, 32 + 36 + 96, 32 + 36 + 97, 32 + 36 + 100, 32 + 37 + 38, 32 + 37 + 40, 32 + 37 + 56, 32 + 37 + 60, 32 + 37 + 61, 32 + 37 + 95, 32 + 37 + 96, 32 + 37 + 97, 32 + 37 + 100, 32 + 38 + 40, 32 + 38 + 56, 32 + 38 + 60, 32 + 38 + 61, 32 + 38 + 95, 32 + 38 + 96, 32 + 38 + 97, 32 + 38 + 100, 32 + 40 + 56, 32 + 40 + 60, 32 + 40 + 61, 32 + 40 + 95, 32 + 40 + 96, 32 + 40 + 97, 32 + 40 + 100, 32 + 56 + 60, 32 + 56 + 61, 32 + 56 + 95, 32 + 56 + 96, 32 + 56 + 97, 32 + 56 + 100, 32 + 60 + 61, 32 + 60 + 95, 32 + 60 + 96, 32 + 60 + 97, 32 + 60 + 100, 32 + 61 + 95, 32 + 61 + 96, 32 + 61 + 97, 32 + 61 + 100, 32 + 95 + 96, 32 + 95 + 97, 32 + 95 + 100, 32 + 96 + 97, 32 + 96 + 100, 32 + 97 + 100, 34 + 36 + 37, 34 + 36 + 38, 34 + 36 + 40, 34 + 36 + 56, 34 + 36 + 60, 34 + 36 + 61, 34 + 36 + 95, 34 + 36 + 96, 34 + 36 + 97, 34 + 36 + 100, 34 + 37 + 38, 34 + 37 + 40, 34 + 37 + 56, 34 + 37 + 60, 34 + 37 + 61, 34 + 37 + 95, 34 + 37 + 96, 34 + 37 + 97, 34 + 37 + 100, 34 + 38 + 40, 34 + 38 + 56, 34 + 38 + 60, 34 + 38 + 61, 34 + 38 + 95, 34 + 38 + 96, 34 + 38 + 97, 34 + 38 + 100, 34 + 40 + 56, 34 + 40 + 60, 34 + 40 + 61, 34 + 40 + 95, 34 + 40 + 96, 34 + 40 + 97, 34 + 40 + 100, 34 + 56 + 60, 34 + 56 + 61, 34 + 56 + 95, 34 + 56 + 96, 34 + 56 + 97, 34 + 56 + 100, 34 + 60 + 61, 34 + 60 + 95, 34 + 60 + 96, 34 + 60 + 97, 34 + 60 + 100, 34 + 61 + 95, 34 + 61 + 96, 34 + 61 + 97, 34 + 61 + 100, 34 + 95 + 96, 34 + 95 + 97, 34 + 95 + 100, 34 + 96 + 97, 34 + 96 + 100, 34 + 97 + 100, 36 + 37 + 38, 36 + 37 + 40, 36 + 37 + 56, 36 + 37 + 60, 36 + 37 + 61, 36 + 37 + 95, 36 + 37 + 96, 36 + 37 + 97, 36 + 37 + 100, 36 + 38 + 40, 36 + 38 + 56, 36 + 38 + 60, 36 + 38 + 61, 36 + 38 + 95, 36 + 38 + 96, 36 + 38 + 97, 36 + 38 + 100, 36 + 40 + 56, 36 + 40 + 60, 36 + 40 + 61, 36 + 40 + 95, 36 + 40 + 96, 36 + 40 + 97, 36 + 40 + 100, 36 + 56 + 60, 36 + 56 + 61, 36 + 56

+ 95, 36 + 56 + 96, 36 + 56 + 97, 36 + 56 + 100, 36 + 60 + 61, 36 + 60 + 95, 36 + 60 + 96, 36 + 60 + 97, 36 + 60 + 100, 36 + 61 + 95, 36 + 61 + 96, 36 + 61 + 97, 36 + 61 + 100, 36 + 95 + 96, 36 + 95 + 97, 36 + 95 + 100, 36 + 96 + 97, 36 + 96 + 100, 36 + 97 + 100, 37 + 38 + 40, 37 + 38 + 56, 37 + 38 + 60, 37 + 38 + 61, 37 + 38 + 95, 37 + 38 + 96, 37 + 38 + 97, 37 + 38 + 100, 37 + 40 + 56, 37 + 40 + 60, 37 + 40 + 61, 37 + 40 + 95, 37 + 40 + 96, 37 + 40 + 97, 37 + 40 + 100, 37 + 56 + 60, 37 + 56 + 61, 37 + 56 + 95, 37 + 56 + 96, 37 + 56 + 97, 37 + 56 + 100, 37 + 60 + 61, 37 + 60 + 95, 37 + 60 + 96, 37 + 60 + 97, 37 + 60 + 100, 37 + 61 + 95, 37 + 61 + 96, 37 + 61 + 97, 37 + 61 + 100, 37 + 95 + 96, 37 + 95 + 97, 37 + 95 + 100, 37 + 96 + 97, 37 + 96 + 100, 37 + 97 + 100, 38 + 40 + 56, 38 + 40 + 60, 38 + 40 + 61, 38 + 40 + 95, 38 + 40 + 96, 38 + 40 + 97, 38 + 40 + 100, 38 + 56 + 60, 38 + 56 + 61, 38 + 56 + 95, 38 + 56 + 96, 38 + 56 + 97, 38 + 56 + 100, 38 + 60 + 61, 38 + 60 + 95, 38 + 60 + 96, 38 + 60 + 97, 38 + 60 + 100, 38 + 61 + 95, 38 + 61 + 96, 38 + 61 + 97, 38 + 61 + 100, 38 + 95 + 96, 38 + 95 + 97, 38 + 95 + 100, 38 + 96 + 97, 38 + 96 + 100, 38 + 97 + 100, 40 + 56 + 60, 40 + 56 + 61, 40 + 56 + 95, 40 + 56 + 96, 40 + 56 + 97, 40 + 56 + 100, 40 + 60 + 61, 40 + 60 + 95, 40 + 60 + 96, 40 + 60 + 97, 40 + 60 + 100, 40 + 61 + 95, 40 + 61 + 96, 40 + 61 + 97, 40 + 61 + 100, 40 + 95 + 96, 40 + 95 + 97, 40 + 95 + 100, 40 + 96 + 97, 40 + 96 + 100, 40 + 97 + 100, 56 + 60 + 61, 56 + 60 + 95, 56 + 60 + 96, 56 + 60 + 97, 56 + 60 + 100, 56 + 61 + 95, 56 + 61 + 96, 56 + 61 + 97, 56 + 61 + 100, 56 + 95 + 96, 56 + 95 + 97, 56 + 95 + 100, 56 + 96 + 97, 56 + 96 + 100, 56 + 97 + 100, 60 + 61 + 95, 60 + 61 + 96, 60 + 61 + 97, 60 + 61 + 100, 60 + 95 + 96, 60 + 95 + 97, 60 + 95 + 100, 60 + 96 + 97, 60 + 96 + 100, 60 + 97 + 100, 61 + 95 + 96, 61 + 95 + 97, 61 + 95 + 100, 61 + 96 + 97, 61 + 96 + 100, 61 + 97 + 100, 95 + 96 + 97, 95 + 96 + 100, 95 + 97 + 100, 96 + 97 + 100

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3; and a light chain variable domain that that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 85, where the light chain variable domain includes

a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 85 listed in Table 4.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3, and where the heavy chain variable domain includes an alanine at position 35 in SEQ ID NO: 84; and a light chain variable domain that that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 85, where the light chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 4.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3, and where the heavy chain variable domain includes an alanine at position 98 in SEQ ID NO: 84; and a light chain variable domain that that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 85, where the light chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 4.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain comprising SEQ ID NO: 85, and a heavy chain variable domain that is at least 90% identical (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more (e.g., two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID

NO: 85, wherein the light chain variable domain includes a histidine at position 29 in SEQ ID NO: 85; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, wherein the light chain variable domain includes a histidine at position 31 in SEQ ID NO: 85; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, wherein the light chain variable domain includes a histidine at position 32 in SEQ ID NO: 85; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, wherein the light chain variable domain includes a histidine at position 34 in SEQ ID NO: 85; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, wherein the light chain variable domain includes a histidine at position 36 in SEQ ID NO: 85; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy

chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, wherein the light chain variable domain includes a histidine at position 37 in SEQ ID NO: 85; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, wherein the light chain variable domain includes a histidine at position 38 in SEQ ID NO: 85; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, wherein the light chain variable domain includes a histidine at position 40 in SEQ ID NO: 85; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, wherein the light chain variable domain includes a histidine at position 56 in SEQ ID NO: 85; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, wherein the light chain variable domain includes a histidine at position 60 in SEQ ID NO: 85; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, wherein the light chain variable domain includes a histidine at position 61 in SEQ ID NO: 85; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, wherein the light chain variable domain includes a histidine at position 95 in SEQ ID NO: 85; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, wherein the light chain variable domain includes a histidine at position 96 in SEQ ID NO: 85; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, wherein the light chain variable domain includes a histidine at position 97 in SEQ ID

NO: 85; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, wherein the light chain variable domain includes a histidine at position 100 in SEQ ID NO: 85; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 84, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 84 listed in Table 3.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of hu139.10 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidine(s) substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain of hu139.10 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidine(s) substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of hu139.10 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidines substituted with an alanine; and a light chain variable domain of hu139.10 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidine(s) substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the heavy chain variable domain of hu139.10 comprises SEQ ID NO: 84. In some examples of any of the ABPCs and antibodies described herein, the light chain variable domain of hu139.10 comprises SEQ ID NO: 85.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a heavy chain variable domain comprising a CDR1, a CDR2, and a

CDR3 of SEQ ID NO: 86, SEQ ID NO: 87, and SEQ ID NO: 88, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in SEQ ID NOs: 86-88 substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 89, SEQ ID NO: 90, and SEQ ID NO: 91, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in SEQ ID NOs: 89-91 substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes: a heavy chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 86, SEQ ID NO: 87, and SEQ ID NO: 88, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in SEQ ID NOs: 86-88 substituted with an alanine; and a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 89, SEQ ID NO: 90, and SEQ ID NO: 91, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in SEQ ID NOs: 89-91 substituted with an alanine.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a heavy chain variable domain of SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain of SEQ ID NO: 85, SEQ ID NO: 132, SEQ ID NO: 133, SEQ ID NO: 134, SEQ ID NO: 135, SEQ ID NO: 136, SEQ ID NO: 137, SEQ ID NO: 138, SEQ ID NO: 139, SEQ ID NO: 140, SEQ ID NO: 141, SEQ ID NO: 142, SEQ ID NO: 143, SEQ ID NO: 144, SEQ ID NO: 145, SEQ ID NO: 146, SEQ ID NO: 147, SEQ ID NO: 148, SEQ ID NO: 149, SEQ ID NO: 150, SEQ ID NO: 151, SEQ ID NO: 152, SEQ ID NO: 153,

SEQ ID NO: 154, SEQ ID NO: 155, SEQ ID NO: 156, SEQ ID NO: 157, SEQ ID NO: 158, SEQ ID NO: 159, SEQ ID NO: 160, SEQ ID NO: 161, SEQ ID NO: 162, or SEQ ID NO: 163.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 85, and a heavy chain variable domain comprising: SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 132, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 133, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120,

SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 134, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 135, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 136, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID

NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 137, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 138, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 139, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99,

SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 140, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 141, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 142, and a heavy

chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 143, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 144, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 145, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 146, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 147, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ

ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 148, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 149, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 150, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO:

115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 151, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 152, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 153, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ

ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 154, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 155, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 156, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID

NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 157, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 158, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 159, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 160, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 161, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ

ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 162, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 163, and a heavy chain variable domain comprising: SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, or SEQ ID NO: 131.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of SEQ ID NO: 164, SEQ ID NO: 165, SEQ ID NO: 166, or SEQ ID NO: 167.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain comprising SEQ ID NO: 164, and a light chain variable domain comprising SEQ ID NO: 85, SEQ ID NO: 132, SEQ ID NO: 133, SEQ ID NO: 134, SEQ ID NO: 135, SEQ ID NO: 136, SEQ ID NO: 137, SEQ ID NO: 138, SEQ ID NO:

139, SEQ ID NO: 140, SEQ ID NO: 141, SEQ ID NO: 142, SEQ ID NO: 143, SEQ ID NO: 144, SEQ ID NO: 145, SEQ ID NO: 146, SEQ ID NO: 147, SEQ ID NO: 148, SEQ ID NO: 149, SEQ ID NO: 150, SEQ ID NO: 151, SEQ ID NO: 152, SEQ ID NO: 153, SEQ ID NO: 154, SEQ ID NO: 155, SEQ ID NO: 156, SEQ ID NO: 157, SEQ ID NO: 158, SEQ ID NO: 159, SEQ ID NO: 160, SEQ ID NO: 161, SEQ ID NO: 162, or SEQ ID NO: 163.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain comprising SEQ ID NO: 165, and a light chain variable domain comprising SEQ ID NO: 85, SEQ ID NO: 132, SEQ ID NO: 133, SEQ ID NO: 134, SEQ ID NO: 135, SEQ ID NO: 136, SEQ ID NO: 137, SEQ ID NO: 138, SEQ ID NO: 139, SEQ ID NO: 140, SEQ ID NO: 141, SEQ ID NO: 142, SEQ ID NO: 143, SEQ ID NO: 144, SEQ ID NO: 145, SEQ ID NO: 146, SEQ ID NO: 147, SEQ ID NO: 148, SEQ ID NO: 149, SEQ ID NO: 150, SEQ ID NO: 151, SEQ ID NO: 152, SEQ ID NO: 153, SEQ ID NO: 154, SEQ ID NO: 155, SEQ ID NO: 156, SEQ ID NO: 157, SEQ ID NO: 158, SEQ ID NO: 159, SEQ ID NO: 160, SEQ ID NO: 161, SEQ ID NO: 162, or SEQ ID NO: 163.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain comprising SEQ ID NO: 166, and a light chain variable domain comprising SEQ ID NO: 85, SEQ ID NO: 132, SEQ ID NO: 133, SEQ ID NO: 134, SEQ ID NO: 135, SEQ ID NO: 136, SEQ ID NO: 137, SEQ ID NO: 138, SEQ ID NO: 139, SEQ ID NO: 140, SEQ ID NO: 141, SEQ ID NO: 142, SEQ ID NO: 143, SEQ ID NO: 144, SEQ ID NO: 145, SEQ ID NO: 146, SEQ ID NO: 147, SEQ ID NO: 148, SEQ ID NO: 149, SEQ ID NO: 150, SEQ ID NO: 151, SEQ ID NO: 152, SEQ ID NO: 153, SEQ ID NO: 154, SEQ ID NO: 155, SEQ ID NO: 156, SEQ ID NO: 157, SEQ ID NO: 158, SEQ ID NO: 159, SEQ ID NO: 160, SEQ ID NO: 161, SEQ ID NO: 162, or SEQ ID NO: 163.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain comprising SEQ ID NO: 167, and a light chain variable domain comprising SEQ ID NO: 85, SEQ ID NO: 132, SEQ ID NO: 133, SEQ ID NO: 134, SEQ ID NO: 135, SEQ ID NO: 136, SEQ ID NO: 137, SEQ ID NO: 138, SEQ ID NO: 139, SEQ ID NO: 140, SEQ ID NO: 141, SEQ ID NO: 142, SEQ ID NO: 143, SEQ ID NO: 144, SEQ ID NO: 145, SEQ ID NO: 146, SEQ ID NO: 147, SEQ ID NO: 148, SEQ ID NO: 149, SEQ ID NO: 150, SEQ ID NO: 151, SEQ ID NO: 152, SEQ ID NO: 153, SEQ ID NO: 154, SEQ ID

NO: 155, SEQ ID NO: 156, SEQ ID NO: 157, SEQ ID NO: 158, SEQ ID NO: 159, SEQ ID NO: 160, SEQ ID NO: 161, SEQ ID NO: 162, or SEQ ID NO: 163.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of SEQ ID NO: 168, SEQ ID NO: 169, SEQ ID NO: 170, SEQ ID NO: 171, SEQ ID NO: 172, SEQ ID NO: 173, SEQ ID NO: 174, SEQ ID NO: 175, SEQ ID NO: 176, or SEQ ID NO: 177.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 168, and a heavy chain variable domain comprising SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, SEQ ID NO: 131, SEQ ID NO: 164, SEQ ID NO: 165, SEQ ID NO: 166, or SEQ ID NO: 167.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 169, and a heavy chain variable domain comprising SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, SEQ ID NO: 131, SEQ ID NO: 164, SEQ ID NO: 165, SEQ ID NO: 166, or SEQ ID NO: 167.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 170, and a heavy chain variable domain comprising SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID

NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, SEQ ID NO: 131, SEQ ID NO: 164, SEQ ID NO: 165, SEQ ID NO: 166, or SEQ ID NO: 167.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 171, and a heavy chain variable domain comprising SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, SEQ ID NO: 131, SEQ ID NO: 164, SEQ ID NO: 165, SEQ ID NO: 166, or SEQ ID NO: 167.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 172, and a heavy chain variable domain comprising SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, SEQ ID NO: 131, SEQ ID NO: 164, SEQ ID NO: 165, SEQ ID NO: 166, or SEQ ID NO: 167.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 173, and a heavy chain variable domain comprising SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, SEQ ID NO: 131, SEQ ID NO: 164, SEQ ID NO: 165, SEQ ID NO: 166, or SEQ ID NO: 167.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 174, and a heavy chain variable domain comprising SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, SEQ ID NO: 131, SEQ ID NO: 164, SEQ ID NO: 165, SEQ ID NO: 166, or SEQ ID NO: 167.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 175, and a heavy chain variable domain comprising SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ

ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, SEQ ID NO: 131, SEQ ID NO: 164, SEQ ID NO: 165, SEQ ID NO: 166, or SEQ ID NO: 167.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 176, and a heavy chain variable domain comprising SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, SEQ ID NO: 131, SEQ ID NO: 164, SEQ ID NO: 165, SEQ ID NO: 166, or SEQ ID NO: 167.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 177, and a heavy chain variable domain comprising SEQ ID NO: 84, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 99, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, SEQ ID NO: 111, SEQ ID NO: 112, SEQ ID NO: 113, SEQ ID NO: 114, SEQ ID NO: 115, SEQ ID NO: 116, SEQ ID NO: 117, SEQ ID NO: 118, SEQ ID NO: 119, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 123, SEQ ID NO: 124, SEQ ID NO: 125, SEQ ID NO: 126, SEQ ID NO: 127, SEQ ID NO: 128, SEQ ID NO: 129, SEQ ID NO: 130, SEQ ID NO: 131, SEQ ID NO: 164, SEQ ID NO: 165, SEQ ID NO: 166, or SEQ ID NO: 167.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of huAD208.4.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acids substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain of huAD208.4.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen,

seventeen, eighteen, nineteen, or twenty) amino acids substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of huAD208.4.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acids substituted with a histidine; and a light chain variable domain of huAD208.4.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acids substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the heavy chain variable domain of huAD208.4.1 comprises SEQ ID NO: 178. In some examples of any of the ABPCs and antibodies described herein, the light chain variable domain of huAD208.4.1 comprises SEQ ID NO: 179.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a heavy chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 180, SEQ ID NO: 181, and SEQ ID NO: 182, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 180-182 substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 183, SEQ ID NO: 184, and SEQ ID NO: 185, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 183-185 substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes: a heavy chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 180, SEQ ID NO: 181, and SEQ ID NO: 182, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 180-182 substituted with a histidine; and a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 183, SEQ ID NO: 184, and SEQ ID NO: 185, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 183-185 substituted with a histidine.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at

least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 178 selected from the group of: 33, 52, 56, 57, or 106. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 179, where the light chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 179 selected from the group of: 25, 26, 28, 29, 31, 36, 37, 57, 59, 94, 95, 96, or 100. In some examples of any of the ABPCs and antibodies described herein the first antigen-binding domain includes: a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 178 selected from the group consisting of: 33, 52, 56, 57, or 106, and a light chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 179, where the light chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 179 selected from the group consisting of: 25, 26, 28, 29, 31, 36, 37, 57, 59, 94, 95, 96, or 100.

In some examples of any of the ABPCs and antibodies described herein, a heavy chain variable domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 178 listed in Table 5.

Table 5. Exemplary Combinations of Amino Acid Positions in SEQ ID NO: 178 that can be Substituted with Histidine

33 + 52, 33 + 56, 33 + 57, 33 + 106, 52 + 56, 52 + 57, 52 + 106, 56 + 57, 56 + 106, 57 + 106, 33 + 52 + 56, 33 + 52 + 57, 33 + 52 + 106, 33 + 56 + 57, 33 + 56 + 106, 33 + 57 + 106, 52 + 56 + 57, 52 + 56 + 106, 52 + 57 + 106, 56 + 57 + 106

In some examples of any of the ABPCs and antibodies described herein, a light chain variable domain includes a light chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 179, where the light chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 179 listed in Table 6.

Table 6. Exemplary Combinations of Amino Acid Positions in SEQ ID NO: 179 that can be Substituted with Histidine

25 + 26, 25 + 28, 25 + 29, 25 + 31, 25 + 36, 25 + 37, 25 + 57, 25 + 59, 25 + 94, 25 + 95, 25 + 96, 25 + 100, 26 + 28, 26 + 29, 26 + 31, 26 + 36, 26 + 37, 26 + 57, 26 + 59, 26 + 94, 26 + 95, 26 + 96, 26 + 100, 28 + 29, 28 + 31, 28 + 36, 28 + 37, 28 + 57, 28 + 59, 28 + 94, 28 + 95, 28 + 96, 28 + 100, 29 + 31, 29 + 36, 29 + 37, 29 + 57, 29 + 59, 29 + 94, 29 + 95, 29 + 96, 29 + 100, 31 + 36, 31 + 37, 31 + 57, 31 + 59, 31 + 94, 31 + 95, 31 + 96, 31 + 100, 36 + 37, 36 + 57, 36 + 59, 36 + 94, 36 + 95, 36 + 96, 36 + 100, 37 + 57, 37 + 59, 37 + 94, 37 + 95, 37 + 96, 37 + 100, 57 + 59, 57 + 94, 57 + 95, 57 + 96, 57 + 100, 59 + 94, 59 + 95, 59 + 96, 59 + 100, 94 + 95, 94 + 96, 94 + 100, 95 + 96, 95 + 100, 96 + 100, 25 + 26 + 28, 25 + 26 + 29, 25 + 26 + 31, 25 + 26 + 36, 25 + 26 + 37, 25 + 26 + 57, 25 + 26 + 59, 25 + 26 + 94, 25 + 26 + 95, 25 + 26 + 96, 25 + 26 + 100, 25 + 28 + 29, 25 + 28 + 31, 25 + 28 + 36, 25 + 28 + 37, 25 + 28 + 57, 25 + 28 + 59, 25 + 28 + 94, 25 + 28 + 95, 25 + 28 + 96, 25 + 28 + 100, 25 + 29 + 31, 25 + 29 + 36, 25 + 29 + 37, 25 + 29 + 57, 25 + 29 + 59, 25 + 29 + 94, 25 + 29 + 95, 25 + 29 + 96, 25 + 29 + 100, 25 + 31 + 36, 25 + 31 + 37, 25 + 31 + 57, 25 + 31 + 59, 25 + 31 + 94, 25 + 31 + 95, 25 + 31 + 96, 25 + 31 + 100, 25 + 36 + 37, 25 + 36 + 57, 25 + 36 + 59, 25 + 36 + 94, 25 + 36 + 95, 25 + 36 + 96, 25 + 36 + 100, 25 + 37 + 57, 25 + 37 + 59, 25 + 37 + 94, 25 + 37 + 95, 25 + 37 + 96, 25 + 37 + 100, 25 + 57 + 59, 25 + 57 + 94, 25 + 57 + 95, 25 + 57 + 96, 25 + 57 + 100,

25 + 59 + 94, 25 + 59 + 95, 25 + 59 + 96, 25 + 59 + 100, 25 + 94 + 95, 25 + 94 + 96, 25 + 94 + 100, 25 + 95 + 96, 25 + 95 + 100, 25 + 96 + 100, 26 + 28 + 29, 26 + 28 + 31, 26 + 28 + 36, 26 + 28 + 37, 26 + 28 + 57, 26 + 28 + 59, 26 + 28 + 94, 26 + 28 + 95, 26 + 28 + 96, 26 + 28 + 100, 26 + 29 + 31, 26 + 29 + 36, 26 + 29 + 37, 26 + 29 + 57, 26 + 29 + 59, 26 + 29 + 94, 26 + 29 + 95, 26 + 29 + 96, 26 + 29 + 100, 26 + 31 + 36, 26 + 31 + 37, 26 + 31 + 57, 26 + 31 + 59, 26 + 31 + 94, 26 + 31 + 95, 26 + 31 + 96, 26 + 31 + 100, 26 + 36 + 37, 26 + 36 + 57, 26 + 36 + 59, 26 + 36 + 94, 26 + 36 + 95, 26 + 36 + 96, 26 + 36 + 100, 26 + 37 + 57, 26 + 37 + 59, 26 + 37 + 94, 26 + 37 + 95, 26 + 37 + 96, 26 + 37 + 100, 26 + 57 + 59, 26 + 57 + 94, 26 + 57 + 95, 26 + 57 + 96, 26 + 57 + 100, 26 + 59 + 94, 26 + 59 + 95, 26 + 59 + 96, 26 + 59 + 100, 26 + 94 + 95, 26 + 94 + 96, 26 + 94 + 100, 26 + 95 + 96, 26 + 95 + 100, 26 + 96 + 100, 28 + 29 + 31, 28 + 29 + 36, 28 + 29 + 37, 28 + 29 + 57, 28 + 29 + 59, 28 + 29 + 94, 28 + 29 + 95, 28 + 29 + 96, 28 + 29 + 100, 28 + 31 + 36, 28 + 31 + 37, 28 + 31 + 57, 28 + 31 + 59, 28 + 31 + 94, 28 + 31 + 95, 28 + 31 + 96, 28 + 31 + 100, 28 + 36 + 37, 28 + 36 + 57, 28 + 36 + 59, 28 + 36 + 94, 28 + 36 + 95, 28 + 36 + 96, 28 + 36 + 100, 28 + 37 + 57, 28 + 37 + 59, 28 + 37 + 94, 28 + 37 + 95, 28 + 37 + 96, 28 + 37 + 100, 28 + 57 + 59, 28 + 57 + 94, 28 + 57 + 95, 28 + 57 + 96, 28 + 57 + 100, 28 + 59 + 94, 28 + 59 + 95, 28 + 59 + 96, 28 + 59 + 100, 28 + 94 + 95, 28 + 94 + 96, 28 + 94 + 100, 28 + 95 + 96, 28 + 95 + 100, 28 + 96 + 100, 29 + 31 + 36, 29 + 31 + 37, 29 + 31 + 57, 29 + 31 + 59, 29 + 31 + 94, 29 + 31 + 95, 29 + 31 + 96, 29 + 31 + 100, 29 + 36 + 37, 29 + 36 + 57, 29 + 36 + 59, 29 + 36 + 94, 29 + 36 + 95, 29 + 36 + 96, 29 + 36 + 100, 29 + 37 + 57, 29 + 37 + 59, 29 + 37 + 94, 29 + 37 + 95, 29 + 37 + 96, 29 + 37 + 100, 29 + 57 + 59, 29 + 57 + 94, 29 + 57 + 95, 29 + 57 + 96, 29 + 57 + 100, 29 + 59 + 94, 29 + 59 + 95, 29 + 59 + 96, 29 + 59 + 100, 29 + 94 + 95, 29 + 94 + 96, 29 + 94 + 100, 29 + 95 + 96, 29 + 95 + 100, 29 + 96 + 100, 31 + 36 + 37, 31 + 36 + 57, 31 + 36 + 59, 31 + 36 + 94, 31 + 36 + 95, 31 + 36 + 96, 31 + 36 + 100, 31 + 37 + 57, 31 + 37 + 59, 31 + 37 + 94, 31 + 37 + 95, 31 + 37 + 96, 31 + 37 + 100, 31 + 57 + 59, 31 + 57 + 94, 31 + 57 + 95, 31 + 57 + 96, 31 + 57 + 100, 31 + 59 + 94, 31 + 59 + 95, 31 + 59 + 96, 31 + 59 + 100, 31 + 94 + 95, 31 + 94 + 96, 31 + 94 + 100, 31 + 95 + 96, 31 + 95 + 100, 31 + 96 + 100, 36 + 37 + 57, 36 + 37 + 59, 36 + 37 + 94, 36 + 37 + 95, 36 + 37 + 96, 36 + 37 + 100, 36 + 57 + 59, 36 + 57 + 94, 36 + 57 + 95, 36 + 57 + 96, 36 + 57 + 100, 36 + 59 + 94, 36 + 59 + 95, 36 + 59 + 96, 36 + 59 + 100, 36 + 94 + 95, 36 + 94 + 96, 36 + 94 + 100, 36 + 95 + 96, 36 + 95 + 100, 36 + 96 + 100, 37 + 57 + 59, 37 + 57 +

94, 37 + 57 + 95, 37 + 57 + 96, 37 + 57 + 100, 37 + 59 + 94, 37 + 59 + 95, 37 + 59 + 96, 37 + 59 + 100, 37 + 94 + 95, 37 + 94 + 96, 37 + 94 + 100, 37 + 95 + 96, 37 + 95 + 100, 37 + 96 + 100, 57 + 59 + 94, 57 + 59 + 95, 57 + 59 + 96, 57 + 59 + 100, 57 + 94 + 95, 57 + 94 + 96, 57 + 94 + 100, 57 + 95 + 96, 57 + 95 + 100, 57 + 96 + 100, 59 + 94 + 95, 59 + 94 + 96, 59 + 94 + 100, 59 + 95 + 96, 59 + 95 + 100, 59 + 96 + 100, 94 + 95 + 96, 94 + 95 + 100, 94 + 96 + 100, 95 + 96 + 100

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 178 listed in Table 5; and a light chain variable domain that that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 179, where the light chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 179 listed in Table 6.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain comprising SEQ ID NO: 179, and a heavy chain variable domain that is at least 90% identical (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more (e.g., two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NO: 178 listed in Table 5.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 179, wherein the light chain variable domain includes a histidine at position 25 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 178 listed in Table 5.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 179, wherein the light chain variable domain includes a histidine at position 26 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 178 listed in Table 5.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 179, wherein the light chain variable domain includes a histidine at position 28 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 178 listed in Table 5.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 179, wherein the light chain variable domain includes a histidine at position 29 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 178 listed in Table 5.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 179, wherein the light chain variable domain includes a histidine at position 31 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 178 listed in Table 5.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 179, wherein the light chain variable domain includes a histidine at position 36 in SEQ ID

NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 178 listed in Table 5.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 179, wherein the light chain variable domain includes a histidine at position 37 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 178 listed in Table 5.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 179, wherein the light chain variable domain includes a histidine at position 57 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 178 listed in Table 5.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 179, wherein the light chain variable domain includes a histidine at position 59 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 178 listed in Table 5.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 179, wherein the light chain variable domain includes a histidine at position 94 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy

chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 178 listed in Table 5.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 179, wherein the light chain variable domain includes a histidine at position 95 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 178 listed in Table 5.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 179, wherein the light chain variable domain includes a histidine at position 96 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 178 listed in Table 5.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 179, wherein the light chain variable domain includes a histidine at position 100 in SEQ ID NO: 2; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 178, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 178 listed in Table 5.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of huAD208.4.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidine(s) substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain of huAD208.4.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidine(s) substituted with an alanine. In some

examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of huAD208.4.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidines substituted with an alanine; and a light chain variable domain of huAD208.4.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidine(s) substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the heavy chain variable domain of huAD208.4.1 comprises SEQ ID NO: 178. In some examples of any of the ABPCs and antibodies described herein, the light chain variable domain of huAD208.4.1 comprises SEQ ID NO: 179.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a heavy chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 180, SEQ ID NO: 181, and SEQ ID NO: 182, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in SEQ ID NOs: 180-182 substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 183, SEQ ID NO: 184, and SEQ ID NO: 185, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in SEQ ID NOs: 183-185 substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes: a heavy chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 180, SEQ ID NO: 181, and SEQ ID NO: 182, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in SEQ ID NOs: 180-182 substituted with an alanine; and a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 183, SEQ ID NO: 184, and SEQ ID NO: 185, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in SEQ ID NOs: 183-185 substituted with an alanine.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a heavy chain variable domain of SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ

ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain of SEQ ID NO: 179, SEQ ID NO: 228, SEQ ID NO: 229, SEQ ID NO: 230, SEQ ID NO: 231, SEQ ID NO: 232, SEQ ID NO: 233, SEQ ID NO: 234, SEQ ID NO: 235, SEQ ID NO: 236, SEQ ID NO: 237, SEQ ID NO: 238, SEQ ID NO: 239, SEQ ID NO: 240, SEQ ID NO: 241, SEQ ID NO: 242, SEQ ID NO: 243, SEQ ID NO: 244, SEQ ID NO: 245, SEQ ID NO: 246, SEQ ID NO: 247, SEQ ID NO: 248, SEQ ID NO: 249, SEQ ID NO: 250, SEQ ID NO: 251, SEQ ID NO: 252, SEQ ID NO: 253, SEQ ID NO: 254, SEQ ID NO: 255, SEQ ID NO: 256, or SEQ ID NO: 257.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 179, and a heavy chain variable domain comprising: SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 228, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO:

198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 229, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 230, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 231, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ

ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 232, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 233, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 234, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 235, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 236, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO:

219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 237, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 238, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 239, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ

ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 240, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 241, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 242, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO:

198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 243, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 244, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 245, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ

ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 246, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 247, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 248, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 249, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 250, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO:

219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 251, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 252, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 253, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ

ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 254, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 255, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 256, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO:

198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 257, and a heavy chain variable domain comprising: SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, or SEQ ID NO: 227.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of SEQ ID NO: 258, SEQ ID NO: 259, SEQ ID NO: 260, or SEQ ID NO: 261.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain comprising SEQ ID NO: 258, and a light chain variable domain comprising SEQ ID NO: 179, SEQ ID NO: 228, SEQ ID NO: 229, SEQ ID NO: 230, SEQ ID NO: 231, SEQ ID NO: 232, SEQ ID NO: 233, SEQ ID NO: 234, SEQ ID NO: 235, SEQ ID NO: 236, SEQ ID NO: 237, SEQ ID NO: 238, SEQ ID NO: 239, SEQ ID NO: 240, SEQ ID NO: 241, SEQ ID NO: 242, SEQ ID NO: 243, SEQ ID NO: 244, SEQ ID NO: 245, SEQ ID NO: 246, SEQ ID NO: 247, SEQ ID NO: 248, SEQ ID NO: 249, SEQ ID NO: 250, SEQ ID NO: 251, SEQ ID NO: 252, SEQ ID NO: 253, SEQ ID NO: 254, SEQ ID NO: 255, SEQ ID NO: 256, or SEQ ID NO: 257.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain comprising SEQ ID NO: 259, and a light

chain variable domain comprising SEQ ID NO: 179, SEQ ID NO: 228, SEQ ID NO: 229, SEQ ID NO: 230, SEQ ID NO: 231, SEQ ID NO: 232, SEQ ID NO: 233, SEQ ID NO: 234, SEQ ID NO: 235, SEQ ID NO: 236, SEQ ID NO: 237, SEQ ID NO: 238, SEQ ID NO: 239, SEQ ID NO: 240, SEQ ID NO: 241, SEQ ID NO: 242, SEQ ID NO: 243, SEQ ID NO: 244, SEQ ID NO: 245, SEQ ID NO: 246, SEQ ID NO: 247, SEQ ID NO: 248, SEQ ID NO: 249, SEQ ID NO: 250, SEQ ID NO: 251, SEQ ID NO: 252, SEQ ID NO: 253, SEQ ID NO: 254, SEQ ID NO: 255, SEQ ID NO: 256, or SEQ ID NO: 257.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain comprising SEQ ID NO: 260, and a light chain variable domain comprising SEQ ID NO: 179, SEQ ID NO: 228, SEQ ID NO: 229, SEQ ID NO: 230, SEQ ID NO: 231, SEQ ID NO: 232, SEQ ID NO: 233, SEQ ID NO: 234, SEQ ID NO: 235, SEQ ID NO: 236, SEQ ID NO: 237, SEQ ID NO: 238, SEQ ID NO: 239, SEQ ID NO: 240, SEQ ID NO: 241, SEQ ID NO: 242, SEQ ID NO: 243, SEQ ID NO: 244, SEQ ID NO: 245, SEQ ID NO: 246, SEQ ID NO: 247, SEQ ID NO: 248, SEQ ID NO: 249, SEQ ID NO: 250, SEQ ID NO: 251, SEQ ID NO: 252, SEQ ID NO: 253, SEQ ID NO: 254, SEQ ID NO: 255, SEQ ID NO: 256, or SEQ ID NO: 257.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain comprising SEQ ID NO: 261, and a light chain variable domain comprising SEQ ID NO: 179, SEQ ID NO: 228, SEQ ID NO: 229, SEQ ID NO: 230, SEQ ID NO: 231, SEQ ID NO: 232, SEQ ID NO: 233, SEQ ID NO: 234, SEQ ID NO: 235, SEQ ID NO: 236, SEQ ID NO: 237, SEQ ID NO: 238, SEQ ID NO: 239, SEQ ID NO: 240, SEQ ID NO: 241, SEQ ID NO: 242, SEQ ID NO: 243, SEQ ID NO: 244, SEQ ID NO: 245, SEQ ID NO: 246, SEQ ID NO: 247, SEQ ID NO: 248, SEQ ID NO: 249, SEQ ID NO: 250, SEQ ID NO: 251, SEQ ID NO: 252, SEQ ID NO: 253, SEQ ID NO: 254, SEQ ID NO: 255, SEQ ID NO: 256, or SEQ ID NO: 257.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain of SEQ ID NO: 262, SEQ ID NO: 263, SEQ ID NO: 264, SEQ ID NO: 265, SEQ ID NO: 266, SEQ ID NO: 267, SEQ ID NO: 268, SEQ ID NO: 269, SEQ ID NO: 270, or SEQ ID NO: 271.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 262, and a heavy

chain variable domain comprising SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 258, SEQ ID NO: 259, SEQ ID NO: 260, or SEQ ID NO: 261.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 263, and a heavy chain variable domain comprising SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 258, SEQ ID NO: 259, SEQ ID NO: 260, or SEQ ID NO: 261.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 264, and a heavy chain variable domain comprising SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO:

219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 258, SEQ ID NO: 259, SEQ ID NO: 260, or SEQ ID NO: 261.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 265, and a heavy chain variable domain comprising SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 258, SEQ ID NO: 259, SEQ ID NO: 260, or SEQ ID NO: 261.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 266, and a heavy chain variable domain comprising SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 258, SEQ ID NO: 259, SEQ ID NO: 260, or SEQ ID NO: 261.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 267, and a heavy chain variable domain comprising SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID

NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 258, SEQ ID NO: 259, SEQ ID NO: 260, or SEQ ID NO: 261.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 268, and a heavy chain variable domain comprising SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 258, SEQ ID NO: 259, SEQ ID NO: 260, or SEQ ID NO: 261.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 269, and a heavy chain variable domain comprising SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224,

SEQ ID NO: 225, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 258, SEQ ID NO: 259, SEQ ID NO: 260, or SEQ ID NO: 261.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 270, and a heavy chain variable domain comprising SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 258, SEQ ID NO: 259, SEQ ID NO: 260, or SEQ ID NO: 261.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 271, and a heavy chain variable domain comprising SEQ ID NO: 178, SEQ ID NO: 186, SEQ ID NO: 187, SEQ ID NO: 188, SEQ ID NO: 189, SEQ ID NO: 190, SEQ ID NO: 191, SEQ ID NO: 192, SEQ ID NO: 193, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 211, SEQ ID NO: 212, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, SEQ ID NO: 217, SEQ ID NO: 218, SEQ ID NO: 219, SEQ ID NO: 220, SEQ ID NO: 221, SEQ ID NO: 222, SEQ ID NO: 223, SEQ ID NO: 224, SEQ ID NO: 225, SEQ ID NO: 226, SEQ ID NO: 227, SEQ ID NO: 258, SEQ ID NO: 259, SEQ ID NO: 260, or SEQ ID NO: 261.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of huAD208.12.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acids substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the first

antigen-binding domain includes a light chain variable domain of huAD208.12.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acids substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of huAD208.12.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acids substituted with a histidine; and a light chain variable domain of huAD208.12.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acids substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the heavy chain variable domain of huAD208.12.1 comprises SEQ ID NO: 272. In some examples of any of the ABPCs and antibodies described herein, the light chain variable domain of huAD208.12.1 comprises SEQ ID NO: 273.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a heavy chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 274, SEQ ID NO: 275, and SEQ ID NO: 276, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 274-276 substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 277, SEQ ID NO: 278, and SEQ ID NO: 279, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 277-279 substituted with a histidine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes: a heavy chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 274, SEQ ID NO: 275, and SEQ ID NO: 276, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 274-276 substituted with a histidine; and a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 277, SEQ ID NO: 278, and SEQ ID NO: 279, respectively, with

collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NOs: 277-279 substituted with a histidine.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 272, where the heavy chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 272 selected from the group of: 24, 27, 29, 62, 63, 98, or 108. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 273, where the light chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 273 selected from the group of: 27, 28, 29, 31, 32, 89, 92, or 93. In some examples of any of the ABPCs and antibodies described herein the first antigen-binding domain includes: a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 272, where the heavy chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 272 selected from the group consisting of: 24, 27, 29, 62, 63, 98, or 108, and a light chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 273, where the light chain variable domain includes a histidine at one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) amino acid positions in SEQ ID NO: 273 is selected from the group consisting of: 27, 28, 29, 31, 32, 89, 92, or 93.

In some examples of any of the ABPCs and antibodies described herein, a heavy chain variable domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 272,

where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 272 listed in Table 7.

Table 7. Exemplary Combinations of Amino Acid Positions in SEQ ID NO: 272 that can be Substituted with Histidine

24 + 27, 24 + 29, 24 + 62, 24 + 63, 24 + 98, 24 + 108, 27 + 29, 27 + 62, 27 + 63, 27 + 98, 27 + 108, 29 + 62, 29 + 63, 29 + 98, 29 + 108, 62 + 63, 62 + 98, 62 + 108, 63 + 98, 63 + 108, 98 + 108, 24 + 27 + 29, 24 + 27 + 62, 24 + 27 + 63, 24 + 27 + 98, 24 + 27 + 108, 24 + 29 + 62, 24 + 29 + 63, 24 + 29 + 98, 24 + 29 + 108, 24 + 62 + 63, 24 + 62 + 98, 24 + 62 + 108, 24 + 63 + 98, 24 + 63 + 108, 24 + 98 + 108, 27 + 29 + 62, 27 + 29 + 63, 27 + 29 + 98, 27 + 29 + 108, 27 + 62 + 63, 27 + 62 + 98, 27 + 62 + 108, 27 + 63 + 98, 27 + 63 + 108, 27 + 98 + 108, 29 + 62 + 63, 29 + 62 + 98, 29 + 62 + 108, 29 + 63 + 98, 29 + 63 + 108, 29 + 98 + 108, 62 + 63 + 98, 62 + 63 + 108, 62 + 98 + 108, 63 + 98 + 108

In some examples of any of the ABPCs and antibodies described herein, a light chain variable domain includes a light chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 273, where the light chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 273 listed in Table 8.

Table 8. Exemplary Combinations of Amino Acid Positions in SEQ ID NO: 273 that can be Substituted with Histidine

27 + 28, 27 + 29, 27 + 31, 27 + 32, 27 + 89, 27 + 92, 27 + 93, 28 + 29, 28 + 31, 28 + 32, 28 + 89, 28 + 92, 28 + 93, 29 + 31, 29 + 32, 29 + 89, 29 + 92, 29 + 93, 31 + 32, 31 + 89, 31 + 92, 31 + 93, 32 + 89, 32 + 92, 32 + 93, 89 + 92, 89 + 93, 92 + 93, 27 + 28 + 29, 27 + 28 + 31, 27 + 28 + 32, 27 + 28 + 89, 27 + 28 + 92, 27 + 28 + 93, 27 + 29 + 31, 27 + 29 + 32, 27 + 29 + 89, 27 + 29 + 92, 27 + 29 + 93, 27 + 31 + 32, 27 + 31 + 89, 27 + 31 + 92, 27 + 31 + 93, 27 + 32 + 89, 27 + 32 + 92, 27 + 32 + 93, 27 + 89 + 92, 27 + 89 + 93, 27 + 92 + 93, 28 + 29 + 31, 28 + 29 + 32, 28 + 29 + 89, 28 + 29 + 92, 28 + 29 + 93, 28 + 31 + 32, 28 + 31 + 89, 28 + 31 + 92, 28 + 31 + 93, 28 + 32 + 89, 28 + 32 + 92, 28 + 32 + 93, 28 + 89 + 92, 28 + 89 + 93, 28 + 92 +

93, 29 + 31 + 32, 29 + 31 + 89, 29 + 31 + 92, 29 + 31 + 93, 29 + 32 + 89, 29 + 32 + 92, 29 + 32 + 93, 29 + 89 + 92, 29 + 89 + 93, 29 + 92 + 93, 31 + 32 + 89, 31 + 32 + 92, 31 + 32 + 93, 31 + 89 + 92, 31 + 89 + 93, 31 + 92 + 93, 32 + 89 + 92, 32 + 89 + 93, 32 + 92 + 93, 89 + 92 + 93

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 272, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 272 listed in Table 7; and a light chain variable domain that that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 273, where the light chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 273 listed in Table 8.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain comprising SEQ ID NO: 273, and a heavy chain variable domain that is at least 90% identical (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 272, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more (e.g., two, three, four, five, six, seven, eight, nine, or ten) amino acid positions in SEQ ID NO: 272 listed in Table 7.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 273, wherein the light chain variable domain includes a histidine at position 27 in SEQ ID NO: 273; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 272, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 272 listed in Table 7.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 273, wherein the light chain variable domain includes a histidine at position 28 in SEQ ID

NO: 273; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 272, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 272 listed in Table 7.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 273, wherein the light chain variable domain includes a histidine at position 29 in SEQ ID NO: 273; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 272, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 272 listed in Table 7.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 273, wherein the light chain variable domain includes a histidine at position 31 in SEQ ID NO: 273; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 272, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 272 listed in Table 7.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 273, wherein the light chain variable domain includes a histidine at position 32 in SEQ ID NO: 273; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 272, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 272 listed in Table 7.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 273, wherein the light chain variable domain includes a histidine at position 89 in SEQ ID NO: 273; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 272, where the heavy

chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 272 listed in Table 7.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 273, wherein the light chain variable domain includes a histidine at position 92 in SEQ ID NO: 273; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 272, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 272 listed in Table 7.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain that is at least 90% identical to SEQ ID NO: 273, wherein the light chain variable domain includes a histidine at position 93 in SEQ ID NO: 273; and a heavy chain variable domain that is at least 90% (e.g., at least 92%, at least 94%, at least 96%, at least 98%, at least 99%, or 100%) identical to SEQ ID NO: 272, where the heavy chain variable domain includes a histidine at any of the specific combinations of one or more amino acid positions in SEQ ID NO: 272 listed in Table 7.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of huAD208.12.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidine(s) substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain of huAD208.12.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidine(s) substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a heavy chain variable domain of huAD208.12.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidines substituted with an alanine; and a light chain variable domain of huAD208.12.1 with one or more (e.g., one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, or twenty) histidine(s) substituted with an alanine. In some examples of any

of the ABPCs and antibodies described herein, the heavy chain variable domain of huAD208.12.1 comprises SEQ ID NO: 272. In some examples of any of the ABPCs and antibodies described herein, the light chain variable domain of huAD208.12.1 comprises SEQ ID NO: 273.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a heavy chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 274, SEQ ID NO: 275, and SEQ ID NO: 276, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in SEQ ID NOs: 274-276 substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 277, SEQ ID NO: 278, and SEQ ID NO: 279, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in SEQ ID NOs: 277-279 substituted with an alanine. In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes: a heavy chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 274, SEQ ID NO: 275, and SEQ ID NO: 276, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in SEQ ID NOs: 274-276 substituted with an alanine; and a light chain variable domain comprising a CDR1, a CDR2, and a CDR3 of SEQ ID NO: 277, SEQ ID NO: 278, and SEQ ID NO: 279, respectively, with collectively a total of one or more (e.g., one, two, three, four, five, six, seven, eight, nine, or ten) histidine(s) in SEQ ID NOs: 277-279 substituted with an alanine.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain comprises a heavy chain variable domain of SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO:

317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain of SEQ ID NO: 273, SEQ ID NO: 324, SEQ ID NO: 325, SEQ ID NO: 326, SEQ ID NO: 327, SEQ ID NO: 328, SEQ ID NO: 329, SEQ ID NO: 330, SEQ ID NO: 331, SEQ ID NO: 332, SEQ ID NO: 333, SEQ ID NO: 334, SEQ ID NO: 335, SEQ ID NO: 336, SEQ ID NO: 337, SEQ ID NO: 338, SEQ ID NO: 339, SEQ ID NO: 340, SEQ ID NO: 341, SEQ ID NO: 342, SEQ ID NO: 343, SEQ ID NO: 344, SEQ ID NO: 345, SEQ ID NO: 346, SEQ ID NO: 347, SEQ ID NO: 348, SEQ ID NO: 349, or SEQ ID NO: 350.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 273, and a heavy chain variable domain comprising: SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 324, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 325, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 326, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 327, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO:

313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 328, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 329, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 330, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ

ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 331, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 332, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 333, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO:

292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 334, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 335, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 336, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ

ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 337, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 338, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 339, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 340, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 341, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO:

313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 342, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 343, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 344, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ

ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 345, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 346, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 347, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO:

292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 348, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 349, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

In some examples of any of the ABPCs and antibodies described herein, the first antigen-binding domain includes a light chain variable domain comprising SEQ ID NO: 350, and a heavy chain variable domain comprising: SEQ ID NO: 272, SEQ ID NO: 280, SEQ ID NO: 281, SEQ

ID NO: 282, SEQ ID NO: 283, SEQ ID NO: 284, SEQ ID NO: 285, SEQ ID NO: 286, SEQ ID NO: 287, SEQ ID NO: 288, SEQ ID NO: 289, SEQ ID NO: 290, SEQ ID NO: 291, SEQ ID NO: 292, SEQ ID NO: 293, SEQ ID NO: 294, SEQ ID NO: 295, SEQ ID NO: 296, SEQ ID NO: 297, SEQ ID NO: 298, SEQ ID NO: 299, SEQ ID NO: 300, SEQ ID NO: 301, SEQ ID NO: 302, SEQ ID NO: 303, SEQ ID NO: 304, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 307, SEQ ID NO: 308, SEQ ID NO: 309, SEQ ID NO: 310, SEQ ID NO: 311, SEQ ID NO: 312, SEQ ID NO: 313, SEQ ID NO: 314, SEQ ID NO: 315, SEQ ID NO: 316, SEQ ID NO: 317, SEQ ID NO: 318, SEQ ID NO: 319, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, or SEQ ID NO: 323.

Also provided herein are pharmaceutical compositions including any of the ABPCs and antibodies described herein. Also provided herein are methods of treating a subject in need thereof that include administering a therapeutically effective amount of any of the ABPCs and antibodies described herein to the subject.

In some examples of any of the ABPCs and antibodies described herein, a composition including the ABPC or antibody (e.g., any of the ABPCs and antibodies described herein) can provide for an increase (e.g., a detectable increase) (e.g., at least a 1% increase, at least a 2% increase, at least a 5% increase, at least a 10% increase, at least a 15% increase, at least a 20% increase, at least a 25% increase, at least a 30% increase, at least a 35% increase, at least a 40% increase, at least a 45% increase, at least a 50% increase, at least a 55% increase, at least a 60% increase, at least a 65% increase, at least a 70% increase, at least a 75% increase, at least a 80% increase, at least a 85% increase, at least a 90% increase, at least a 95% increase, at least a 100% increase, at least a 120% increase, at least a 140% increase, at least a 160% increase, at least a 180% increase, at least a 200% increase, at least a 250% increase, at least a 300% increase, at least a 350% increase, at least a 400% increase, at least a 450% increase, at least a 500% increase, at least a 1,000% increase, at least a 2,000% increase, at least a 3,000% increase, at least a 4,000% increase, at least a 5,000% increase, at least a 6,000% increase, at least a 7,000% increase, at least a 8,000% increase, at a least a 9,000% increase, or at least a 10,000% increase, or about a 1% increase to about 10,000% increase, about a 1% increase to about a 9,000% increase, about a 1% increase to about a 8,000% increase, about a 1% increase to about a 7,000% increase, about a 1% increase to about a 6,000% increase, about a 1% increase to about a 5,000% increase, about a 1% increase to about a 4,000% increase, about a 1% increase to about a 3,000% increase, about a 1% increase to about a 2,000% increase, about a 1% increase to about a

1,000% increase, about a 1% increase to about a 500% increase, about a 1% increase to about a 450% increase, about a 1% increase to about a 400% increase, about a 1% increase to about a 350% increase, about a 1% increase to about a 300% increase, about a 1% increase to about a 250% increase, about a 1% increase to about a 200% increase, about a 1% increase to about a 180% increase, about a 1% increase to about a 160% increase, about a 1% increase to about a 140% increase, about a 1% increase to about a 120% increase, about a 1% increase to about a 100% increase, about a 1% increase to about a 95% increase, about a 1% increase to about a 90% increase, about a 1% increase to about a 85% increase, about a 1% increase to about a 80% increase, about a 1% increase to about a 75% increase, about a 1% increase to about a 70% increase, about a 1% increase to about a 65% increase, about a 1% increase to about a 60% increase, about a 1% increase to about a 55% increase, about a 1% increase to about a 50% increase, about a 1% increase to about a 45% increase, about a 1% increase to about a 40% increase, about a 1% increase to about a 35% increase, about a 1% increase to about a 25% increase, about a 1% increase to about a 20% increase, about a 1% increase to about a 15% increase, about a 1% increase to about a 10% increase, about a 1% increase to about a 5% increase, about a 2% increase to about 10,000% increase, about a 2% increase to about a 9,000% increase, about a 2% increase to about a 8,000% increase, about a 2% increase to about a 7,000% increase, about a 2% increase to about a 6,000% increase, about a 2% increase to about a 5,000% increase, about a 2% increase to about a 4,000% increase, about a 2% increase to about a 3,000% increase, about a 2% increase to about a 2,000% increase, about a 2% increase to about a 1,000% increase, about a 2% increase to about a 500% increase, about a 2% increase to about a 450% increase, about a 2% increase to about a 400% increase, about a 2% increase to about a 350% increase, about a 2% increase to about a 300% increase, about a 2% increase to about a 250% increase, about a 2% increase to about a 200% increase, about a 2% increase to about a 180% increase, about a 2% increase to about a 160% increase, about a 2% increase to about a 140% increase, about a 2% increase to about a 120% increase, about a 2% increase to about a 100% increase, about a 2% increase to about a 95% increase, about a 2% increase to about a 90% increase, about a 2% increase to about a 85% increase, about a 2% increase to about a 80% increase, about a 2% increase to about a 75% increase, about a 2% increase to about a 70% increase, about a 2% increase to about a 65% increase, about a 2% increase to about a 60% increase, about a 2% increase to about a 55% increase, about a 2% increase to about a 50%

increase, about a 2% increase to about a 45% increase, about a 2% increase to about a 40% increase, about a 2% increase to about a 35% increase, about a 2% increase to about a 25% increase, about a 2% increase to about a 20% increase, about a 2% increase to about a 15% increase, about a 2% increase to about a 10% increase, about a 2% increase to about a 5% increase, about a 5% increase to about 10,000% increase, about a 5% increase to about a 9,000% increase, about a 5% increase to about a 8,000% increase, about a 5% increase to about a 7,000% increase, about a 5% increase to about a 6,000% increase, about a 5% increase to about a 5,000% increase, about a 5% increase to about a 4,000% increase, about a 5% increase to about a 3,000% increase, about a 5% increase to about a 2,000% increase, about a 5% increase to about a 1,000% increase, about a 5% increase to about a 500% increase, about a 5% increase to about a 450% increase, about a 5% increase to about a 400% increase, about a 5% increase to about a 350% increase, about a 5% increase to about a 300% increase, about a 5% increase to about a 250% increase, about a 5% increase to about a 200% increase, about a 5% increase to about a 180% increase, about a 5% increase to about a 160% increase, about a 5% increase to about a 140% increase, about a 5% increase to about a 120% increase, about a 5% increase to about a 100% increase, about a 5% increase to about a 95% increase, about a 5% increase to about a 90% increase, about a 5% increase to about a 85% increase, about a 5% increase to about a 80% increase, about a 5% increase to about a 75% increase, about a 5% increase to about a 70% increase, about a 5% increase to about a 65% increase, about a 5% increase to about a 60% increase, about a 5% increase to about a 55% increase, about a 5% increase to about a 50% increase, about a 5% increase to about a 45% increase, about a 5% increase to about a 40% increase, about a 5% increase to about a 35% increase, about a 5% increase to about a 25% increase, about a 5% increase to about a 20% increase, about a 5% increase to about a 15% increase, about a 5% increase to about a 10% increase, about a 10% increase to about 10,000% increase, about a 10% increase to about a 9,000% increase, about a 10% increase to about a 8,000% increase, about a 10% increase to about a 7,000% increase, about a 10% increase to about a 6,000% increase, about a 10% increase to about a 5,000% increase, about a 10% increase to about a 4,000% increase, about a 10% increase to about a 3,000% increase, about a 10% increase to about a 2,000% increase, about a 10% increase to about a 1,000% increase, about a 10% increase to about a 500% increase, about a 10% increase to about a 450% increase, about a 10% increase to about a 400% increase, about a 10% increase to about a 350% increase, about a

10% increase to about a 300% increase, about a 10% increase to about a 250% increase, about a 10% increase to about a 200% increase, about a 10% increase to about a 180% increase, about a 10% increase to about a 160% increase, about a 10% increase to about a 140% increase, about a 10% increase to about a 120% increase, about a 10% increase to about a 100% increase, about a 10% increase to about a 95% increase, about a 10% increase to about a 90% increase, about a 10% increase to about a 85% increase, about a 10% increase to about a 80% increase, about a 10% increase to about a 75% increase, about a 10% increase to about a 70% increase, about a 10% increase to about a 65% increase, about a 10% increase to about a 60% increase, about a 10% increase to about a 55% increase, about a 10% increase to about a 50% increase, about a 10% increase to about a 45% increase, about a 10% increase to about a 40% increase, about a 10% increase to about a 35% increase, about a 10% increase to about a 30% increase, about a 10% increase to about a 25% increase, about a 10% increase to about a 20% increase, about a 10% increase to about a 15% increase, about a 15% increase to about 10,000% increase, about a 15% increase to about a 9,000% increase, about a 15% increase to about a 8,000% increase, about a 15% increase to about a 7,000% increase, about a 15% increase to about a 6,000% increase, about a 15% increase to about a 5,000% increase, about a 15% increase to about a 4,000% increase, about a 15% increase to about a 3,000% increase, about a 15% increase to about a 2,000% increase, about a 15% increase to about a 1,000% increase, about a 15% increase to about a 500% increase, about a 15% increase to about a 450% increase, about a 15% increase to about a 400% increase, about a 15% increase to about a 350% increase, about a 15% increase to about a 300% increase, about a 15% increase to about a 250% increase, about a 15% increase to about a 200% increase, about a 15% increase to about a 180% increase, about a 15% increase to about a 160% increase, about a 15% increase to about a 140% increase, about a 15% increase to about a 120% increase, about a 15% increase to about a 100% increase, about a 15% increase to about a 95% increase, about a 15% increase to about a 90% increase, about a 15% increase to about a 85% increase, about a 15% increase to about a 80% increase, about a 15% increase to about a 75% increase, about a 15% increase to about a 70% increase, about a 15% increase to about a 65% increase, about a 15% increase to about a 60% increase, about a 15% increase to about a 55% increase, about a 15% increase to about a 50% increase, about a 15% increase to about a 45% increase, about a 15% increase to about a 40% increase, about a 15% increase to about a 35% increase, about a 15% increase to about a 30% increase, about a 15% increase to

about a 25% increase, about a 15% increase to about a 20% increase, about a 20% increase to about 10,000% increase, about a 20% increase to about a 9,000% increase, about a 20% increase to about a 8,000% increase, about a 20% increase to about a 7,000% increase, about a 20% increase to about a 6,000% increase, about a 20% increase to about a 5,000% increase, about a 20% increase to about a 4,000% increase, about a 20% increase to about a 3,000% increase, about a 20% increase to about a 2,000% increase, about a 20% increase to about a 1,000% increase, about a 20% increase to about a 500% increase, about a 20% increase to about a 450% increase, about a 20% increase to about a 400% increase, about a 20% increase to about a 350% increase, about a 20% increase to about a 300% increase, about a 20% increase to about a 250% increase, about a 20% increase to about a 200% increase, about a 20% increase to about a 180% increase, about a 20% increase to about a 160% increase, about a 20% increase to about a 140% increase, about a 20% increase to about a 120% increase, about a 20% increase to about a 100% increase, about a 20% increase to about a 95% increase, about a 20% increase to about a 90% increase, about a 20% increase to about a 85% increase, about a 20% increase to about a 80% increase, about a 20% increase to about a 75% increase, about a 20% increase to about a 70% increase, about a 20% increase to about a 65% increase, about a 20% increase to about a 60% increase, about a 20% increase to about a 55% increase, about a 20% increase to about a 50% increase, about a 20% increase to about a 45% increase, about a 20% increase to about a 40% increase, about a 20% increase to about a 35% increase, about a 20% increase to about a 30% increase, about a 20% increase to about a 25% increase, about a 25% increase to about 10,000% increase, about a 25% increase to about a 9,000% increase, about a 25% increase to about a 8,000% increase, about a 25% increase to about a 7,000% increase, about a 25% increase to about a 6,000% increase, about a 25% increase to about a 5,000% increase, about a 25% increase to about a 4,000% increase, about a 25% increase to about a 3,000% increase, about a 25% increase to about a 2,000% increase, about a 25% increase to about a 1,000% increase, about a 25% increase to about a 500% increase, about a 25% increase to about a 450% increase, about a 25% increase to about a 400% increase, about a 25% increase to about a 350% increase, about a 25% increase to about a 300% increase, about a 25% increase to about a 250% increase, about a 25% increase to about a 200% increase, about a 25% increase to about a 180% increase, about a 25% increase to about a 160% increase, about a 25% increase to about a 140% increase, about a 25% increase to about a 120% increase, about a 25% increase to about a 100% increase, about a

25% increase to about a 95% increase, about a 25% increase to about a 90% increase, about a 25% increase to about a 85% increase, about a 25% increase to about a 80% increase, about a 25% increase to about a 75% increase, about a 25% increase to about a 70% increase, about a 25% increase to about a 65% increase, about a 25% increase to about a 60% increase, about a 25% increase to about a 55% increase, about a 25% increase to about a 50% increase, about a 25% increase to about a 45% increase, about a 25% increase to about a 40% increase, about a 25% increase to about a 35% increase, about a 25% increase to about a 30% increase, about a 30% increase to about 10,000% increase, about a 30% increase to about a 9,000% increase, about a 30% increase to about a 8,000% increase, about a 30% increase to about a 7,000% increase, about a 30% increase to about a 6,000% increase, about a 30% increase to about a 5,000% increase, about a 30% increase to about a 4,000% increase, about a 30% increase to about a 3,000% increase, about a 30% increase to about a 2,000% increase, about a 30% increase to about a 1,000% increase, about a 30% increase to about a 500% increase, about a 30% increase to about a 450% increase, about a 30% increase to about a 400% increase, about a 30% increase to about a 350% increase, about a 30% increase to about a 300% increase, about a 30% increase to about a 250% increase, about a 30% increase to about a 200% increase, about a 30% increase to about a 180% increase, about a 30% increase to about a 160% increase, about a 30% increase to about a 140% increase, about a 30% increase to about a 120% increase, about a 30% increase to about a 100% increase, about a 30% increase to about a 95% increase, about a 30% increase to about a 90% increase, about a 30% increase to about a 85% increase, about a 30% increase to about a 80% increase, about a 30% increase to about a 75% increase, about a 30% increase to about a 70% increase, about a 30% increase to about a 65% increase, about a 30% increase to about a 60% increase, about a 30% increase to about a 55% increase, about a 30% increase to about a 50% increase, about a 30% increase to about a 45% increase, about a 30% increase to about a 40% increase, about a 30% increase to about a 35% increase, about a 35% increase to about 10,000% increase, about a 35% increase to about a 9,000% increase, about a 35% increase to about a 8,000% increase, about a 35% increase to about a 7,000% increase, about a 35% increase to about a 6,000% increase, about a 35% increase to about a 5,000% increase, about a 35% increase to about a 4,000% increase, about a 35% increase to about a 3,000% increase, about a 35% increase to about a 2,000% increase, about a 35% increase to about a 1,000% increase, about a 35% increase to about a 500% increase, about a 35% increase

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In some examples of any of the ABPCs and antibodies described herein, a composition including the ABPC or antibody (e.g., any of the ABPCs or antibodies described herein) can provide for an increase (e.g., a detectable increase) (e.g., at least a 0.1-fold increase, at least a 0.2-fold increase, at least a 0.3-fold increase, at least a 0.4-fold increase, at least a 0.5-fold increase, at least a 0.6-fold increase, at least a 0.7-fold increase, at least a 0.8-fold increase, at least a 0.9-fold increase, at least a 1.0-fold increase, at least a 1.2-fold increase, at least a 1.4-fold increase, at least a 1.5-fold increase, at least a 1.6-fold increase, at least a 1.8-fold increase, at least a 2.0-fold increase, at least a 2.2-fold increase, at least a 2.4-fold increase, at least a 2.5-fold increase, at least a 2.6-fold increase, at least a 2.8-fold increase, at least a 3.0-fold increase, at least a 3.5-fold increase, at least a 4.0-fold increase, at least a 4.5-fold increase, at least a 5.0-fold increase, at least a 5.5-fold increase, at least a 6.0-fold increase, at least a 6.5-fold increase, at least a 7.0-fold increase, at least a 7.5-fold increase, at least a 8.0-fold increase, at least a 8.5-fold increase, at least a 9.0-fold increase, at least a 9.5-fold increase, at least a 10-fold increase, at least a 15-fold increase, at least a 20-fold increase, at least a 25-fold increase, at least a 30-fold increase, at least a 35-fold increase, at least a 40-fold increase, at least a 45-fold increase, at least a 50-fold increase, at least a 55-fold increase, at least a 60-fold increase, at least a 65-fold increase, at least a 70-fold increase, at least a 75-fold increase, at least a 80-fold increase, at least a 85-fold increase, at least a 90-fold increase, at least a 95-fold increase, or at least a 100-fold increase, or about a 0.1-fold increase to about a 100-fold increase, about 0.1-fold increase to about a 90-fold increase, about 0.1-fold increase to about a 80-fold increase, about a 0.1-fold increase to about a 70-fold increase, about a 0.1-fold increase to about a 60-fold increase, about a 0.1-fold increase to about a 50-fold increase, about a 0.1-fold increase to about a 40-fold increase, about a 0.1-fold increase to about a 30-fold increase, about 0.1-fold increase to about 20-fold increase, about a 0.1-fold increase to about a 10-fold increase, about a 0.1-fold increase to about a 9.5-fold increase, about a 0.1-fold increase to about a 9.0-fold increase, about a 0.1-fold increase to about a 8.5-fold increase, about a 0.1-fold increase to about a 8.0-fold increase, about a 0.1-fold increase to about a 7.5-fold increase, about a 0.1-fold increase to about a 7.0-fold increase, about a 0.1-fold increase to about a 6.5-fold increase, about a 0.1-fold increase to about a 6.0-fold increase, about a 0.1-fold increase to about a 5.5-fold increase, about a 0.1-fold increase to about a 5.0-fold increase, about a 0.1-fold increase to about a 4.5-fold increase, about a 0.1-fold increase to about a 4.0-fold increase, about a 0.1-fold increase to about a 3.5-fold

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increase to about a 80-fold increase, about a 20-fold increase to about a 70-fold increase, about a 20-fold increase to about a 60-fold increase, about a 20-fold increase to about a 50-fold increase, about a 20-fold increase to about a 40-fold increase, about a 20-fold increase to about a 30-fold increase, about a 30-fold increase to about a 100-fold increase, about 30-fold increase to about a 90-fold increase, about 30-fold increase to about a 80-fold increase, about a 30-fold increase to about a 70-fold increase, about a 30-fold increase to about a 60-fold increase, about a 30-fold increase to about a 50-fold increase, about a 30-fold increase to about a 40-fold increase, about a 40-fold increase to about a 100-fold increase, about 40-fold increase to about a 90-fold increase, about 40-fold increase to about a 80-fold increase, about a 40-fold increase to about a 70-fold increase, about a 40-fold increase to about a 60-fold increase, about a 40-fold increase to about a 50-fold increase, about a 50-fold increase to about a 100-fold increase, about 50-fold increase to about a 90-fold increase, about 50-fold increase to about a 80-fold increase, about a 50-fold increase to about a 70-fold increase, about a 50-fold increase to about a 60-fold increase, about a 60-fold increase to about a 100-fold increase, about 60-fold increase to about a 90-fold increase, about 60-fold increase to about a 80-fold increase, about a 60-fold increase to about a 70-fold increase, about a 70-fold increase to about a 100-fold increase, about 70-fold increase to about a 90-fold increase, about 70-fold increase to about a 80-fold increase, about a 80-fold increase to about a 100-fold increase, about 80-fold increase to about a 90-fold increase, or about a 90-fold increase to about a 100-fold increase) in toxin liberation in the target mammalian cell (e.g., any of the target mammalian cells described herein) as compared to a composition including the same amount of a control ABPC or control antibody (e.g., any of the exemplary control ABPCs or control antibodies described herein).

In some examples of any of the ABPCs and antibodies described herein, a composition including the ABPC or antibody (e.g., any of the ABPCs or antibodies described herein) can provide for an increase (e.g., a detectable increase) (e.g., at least a 1% increase, at least a 2% increase, at least a 5% increase, at least a 10% increase, at least a 15% increase, at least a 20% increase, at least a 25% increase, at least a 30% increase, at least a 35% increase, at least a 40% increase, at least a 45% increase, at least a 50% increase, at least a 55% increase, at least a 60% increase, at least a 65% increase, at least a 70% increase, at least a 75% increase, at least a 80% increase, at least a 85% increase, at least a 90% increase, at least a 95% increase, at least a 100% increase, at least a 120% increase, at least a 140% increase, at least a 160% increase, at least a

180% increase, at least a 200% increase, at least a 250% increase, at least a 300% increase, at least a 350% increase, at least a 400% increase, at least a 450% increase, at least a 500% increase, at least a 1,000% increase, at least a 2,000% increase, at least a 3,000% increase, at least a 4,000% increase, at least a 5,000% increase, at least a 6,000% increase, at least a 7,000% increase, at least a 8,000% increase, at a least a 9,000% increase, or at least a 10,000% increase, or about a 1% increase to about a 10,000% increase (e.g., or any of the subranges of this range described herein)) in target mammalian cell killing (e.g., any of the exemplary target mammalian cells described herein) as compared to a composition including the same amount of a control ABPC or control antibody (e.g., any of the exemplary control ABPCs or control antibodies described herein).

In some examples of any of the ABPCs and antibodies described herein, a composition including the ABPC or antibody (e.g., any of the ABPCs or antibodies described herein) can provide for an increase (e.g., a detectable increase) (e.g., at least a 0.1-fold increase, at least a 0.2-fold increase, at least a 0.3-fold increase, at least a 0.4-fold increase, at least a 0.5-fold increase, at least a 0.6-fold increase, at least a 0.7-fold increase, at least a 0.8-fold increase, at least a 0.9-fold increase, at least a 1.0-fold increase, at least a 1.2-fold increase, at least a 1.4-fold increase, at least a 1.5-fold increase, at least a 1.6-fold increase, at least a 1.8-fold increase, at least a 2.0-fold increase, at least a 2.2-fold increase, at least a 2.4-fold increase, at least a 2.5-fold increase, at least a 2.6-fold increase, at least a 2.8-fold increase, at least a 3.0-fold increase, at least a 3.5-fold increase, at least a 4.0-fold increase, at least a 4.5-fold increase, at least a 5.0-fold increase, at least a 5.5-fold increase, at least a 6.0-fold increase, at least a 6.5-fold increase, at least a 7.0-fold increase, at least a 7.5-fold increase, at least a 8.0-fold increase, at least a 8.5-fold increase, at least a 9.0-fold increase, at least a 9.5-fold increase, at least a 10-fold increase, at least a 15-fold increase, at least a 20-fold increase, at least a 25-fold increase, at least a 30-fold increase, at least a 35-fold increase, at least a 40-fold increase, at least a 40-fold increase, at least a 45-fold increase, at least a 50-fold increase, at least a 55-fold increase, at least a 60-fold increase, at least a 65-fold increase, at least a 70-fold increase, at least a 80-fold increase, at least a 85-fold increase, at least a 90-fold increase, at least a 95-fold increase, or at least a 100-fold increase, or about a 0.1-fold increase to about a 100-fold increase (or any of the subranges of this range described herein)) in target mammalian cell killing (e.g., any of the exemplary target mammalian cells described herein) as compared to a composition including the same amount of a

control ABPC or control antibody (e.g., any of the exemplary control ABPCs or control antibodies described herein).

In some examples of any of the ABPCs and antibodies described herein, a composition including any of the ABPCs and antibodies described herein (e.g., upon contacting target mammalian cells presenting LRRC15 on their surface) results in decreased (e.g., at least a 1% decrease, at least a 5% decrease, at least a 10% decrease, at least a 15% decrease, at least a 20% decrease, at least a 25% decrease, at least a 30% decrease, at least a 35% decrease, at least a 40% decrease, at least a 45% decrease, at least a 50% decrease, at least a 55% decrease, at least a 60% decrease, at least a 65% decrease, at least a 70% decrease, at least a 75% decrease, at least a 80% decrease, at least a 85% decrease, at least a 90% decrease, at least a 95% decrease, or at least a 99% decrease, about a 1% decrease to about a 99% decrease, or any of the subranges of this range described herein) IC_{50} (for target mammalian cell killing) as compared to the IC_{50} for a composition including the same amount of a control ABPC or control antibody (e.g., any of the control ABPCs or control antibodies described herein) (e.g., upon contacting the same target mammalian cells).

In some examples of any of the ABPCs and antibodies described herein, a composition including any of the ABPCs or antibodies described herein (e.g., upon contacting target mammalian cells presenting LRRC15 on their surface) can provide for an increase (e.g., at least a 0.1-fold increase, at least a 0.2-fold increase, at least a 0.4-fold increase, at least a 0.6-fold increase, at least a 0.8-fold increase, at least a 1-fold increase, at least a 2-fold increase, at least a 5-fold increase, at least a 10-fold increase, at least a 15-fold increase, at least a 20-fold increase, at least a 25-fold increase, at least a 30-fold increase, at least a 35-fold increase, at least a 40-fold increase, at least a 45-fold increase, at least a 50-fold increase, at least a 55-fold increase, at least a 60-fold increase, at least a 65-fold increase, at least a 70-fold increase, at least a 75-fold increase, at least a 80-fold increase, at least a 85-fold increase, at least a 90-fold increase, at least a 95-fold increase, or at least a 100-fold increase, or about a 0.1-fold increase to about 500-fold increase (or any of the subranges of this range described herein) in the ratio of K_D on target mammalian cells presenting LRRC15 on their surface at a neutral pH (a pH of about 7.0 to about 8.0) to IC_{50} at the neutral pH on the same target cells, e.g., as compared to a control ABPC or control antibody (e.g., any of the exemplary control ABPCs or control antibodies described herein).

In some examples of any of the ABPCs and antibodies described herein, a composition including the ABPC or antibody (e.g., any of the ABPCs or antibodies described herein) can provide for an increase (e.g., a detectable increase) (e.g., at least a 1% increase, at least a 2% increase, at least a 5% increase, at least a 10% increase, at least a 15% increase, at least a 20% increase, at least a 25% increase, at least a 30% increase, at least a 35% increase, at least a 40% increase, at least a 45% increase, at least a 50% increase, at least a 55% increase, at least a 60% increase, at least a 65% increase, at least a 70% increase, at least a 75% increase, at least a 80% increase, at least a 85% increase, at least a 90% increase, at least a 95% increase, at least a 100% increase, at least a 120% increase, at least a 140% increase, at least a 160% increase, at least a 180% increase, at least a 200% increase, at least a 250% increase, at least a 300% increase, at least a 350% increase, at least a 400% increase, at least a 450% increase, at least a 500% increase, at least a 1,000% increase, at least a 2,000% increase, at least a 3,000% increase, at least a 4,000% increase, at least a 5,000% increase, at least a 6,000% increase, at least a 7,000% increase, at least a 8,000% increase, at least a 9,000% increase, or at least a 10,000% increase, or about a 1% increase to about a 10,000% increase (e.g., or any of the subranges of this range described herein)) in endolysosomal delivery in the target mammalian cell (e.g., any of the exemplary target mammalian cells described herein) as compared to a composition including the same amount of a control ABPC or control antibody (e.g., any of the exemplary control ABPCs or control antibodies described herein).

In some examples of any of the ABPCs and antibodies described herein, a composition including the ABPC or antibody (e.g., any of the ABPCs or antibodies described herein) can provide for an increase (e.g., a detectable increase) (e.g., at least a 0.1-fold increase, at least a 0.2-fold increase, at least a 0.3-fold increase, at least a 0.4-fold increase, at least a 0.5-fold increase, at least a 0.6-fold increase, at least a 0.7-fold increase, at least a 0.8-fold increase, at least a 0.9-fold increase, at least a 1.0-fold increase, at least a 1.2-fold increase, at least a 1.4-fold increase, at least a 1.5-fold increase, at least a 1.6-fold increase, at least a 1.8-fold increase, at least a 2.0-fold increase, at least a 2.2-fold increase, at least a 2.4-fold increase, at least a 2.5-fold increase, at least a 2.6-fold increase, at least a 2.8-fold increase, at least a 3.0-fold increase, at least a 3.5-fold increase, at least a 4.0-fold increase, at least a 4.5-fold increase, at least a 5.0-fold increase, at least a 5.5-fold increase, at least a 6.0-fold increase, at least a 6.5-fold increase, at least a 7.0-fold increase, at least a 7.5-fold increase, at least a 8.0-fold increase, at least a 8.5-fold

increase, at least a 9.0-fold increase, at least a 9.5-fold increase, at least a 10-fold increase, at least a 15-fold increase, at least a 20-fold increase, at least a 25-fold increase, at least a 30-fold increase, at least a 35-fold increase, at least a 40-fold increase, at least a 45-fold increase, at least a 50-fold increase, at least a 55-fold increase, at least a 60-fold increase, at least a 65-fold increase, at least a 70-fold increase, at least a 75-fold increase, at least a 80-fold increase, at least a 85-fold increase, at least a 90-fold increase, at least a 95-fold increase, or at least a 100-fold increase, or about a 0.1-fold increase to about a 100-fold increase (or any of the subranges of this range described herein)) in endolysosomal delivery in the target mammalian cell (e.g., any of the exemplary target mammalian cells described herein) as compared to a composition including the same amount of a control ABPC or control antibody (e.g., any of the exemplary control ABPCs or control antibodies described herein).

In examples of any of the ABPCs or antibodies described herein, the target mammalian cell does not express an FcRn receptor, or expresses a lower (e.g., a detectably lower) level (e.g., at least a 1% decreased, at least a 2% decreased, at least a 5% decreased, at least a 10% decrease, at least a 15% decreased, at least a 20% decreased, at least a 25% decreased, at least a 30% decreased, at least a 35% decreased, at least a 40% decreased, at least a 45% decreased, at least a 50% decreased, at least a 55% decreased, at least a 60% decreased, at least a 65% decreased, at least a 70% decreased, at least a 75% decreased, at least a 80% decreased, at least a 85% decreased, at least a 90% decreased, at least a 95% decreased, or at least a 99% decreased level) of FcRn receptor as compared to a FcRn expressing control cell (e.g., HUVEC – ThermoFisher #C0035C). In some examples of any of the ABPCs or antibodies described herein, the target mammalian cell is a cancer cell. In some examples of any of the ABPCs or antibodies described herein, the ABPC or antibody is cytotoxic or cytostatic to the target mammalian cell.

In some examples of any of the ABPCs or antibodies described herein, a composition including any of the ABPCs or antibodies described herein (e.g., upon administration to a subject) results in less (e.g., a 1% decrease to about a 99% decrease, or any of the subranges of this range described herein) of a reduction in the level of LRRC15 presented on the surface of the target cell as compared to a composition including the same amount of a control ABPC or a control antibody (e.g., any of the control ABPCs or control antibodies described herein). In some examples of any of the ABPCs or antibodies described herein, the composition does not

result in a detectable reduction in the level of the LRRC15 presented on the surface of the target mammalian cell.

In some examples of any of the ABPCs or antibodies described herein, the ABPC or antibody is cross-reactive with a non-human primate LRRC15 and a human LRRC15. In some examples of any of the ABPCs or antibodies described herein, the ABPC or antibody is cross-reactive with a non-human primate LRRC15, a human LRRC15, and one or both of rat LRRC15 and a mouse LRRC15. In some examples of any of the ABPCs or antibodies described herein, the ABPC or antibody is cross-reactive with a non-human primate LRRC15, a human LRRC15, a rat LRRC15, and a mouse LRRC15. In some examples of any of the ABPCs or antibodies described herein, the ABPC or antibody is cross-reactive with mouse LRRC15 and rat LRRC15. In some examples of any of the ABPCs or antibodies described herein, the antigen-binding domain binds to an epitope of LRRC15 that is present on the surface of cells from an Old World Monkey.

Some examples of any of the ABPCs or antibodies described herein can further include a second antigen-binding domain (e.g., any of the exemplary antigen-binding domains described herein).

Non-limiting aspects of these methods are described below, and can be used in any combination without limitation. Additional aspects of these methods are known in the art.

LRRC15 or Epitope of LRRC15

Leucine Rich Repeat Containing Protein 15 (LRRC15) is a tumor antigen that is known in the art, and is the target of therapeutic antibodies in oncology (Purcell et al (2018) "LRRC15 Is a Novel Mesenchymal Protein and Stromal Target for Antibody-Drug Conjugates" Cancer Res. 78(14):4059-4072). The sequence of the mature Human LRRC15 can be found in SEQ ID NO: 9. The sequence of the cDNA encoding the mature Human LRRC15 can be found in SEQ ID NO: 10. The sequence of the extracellular domain of LRRC15 can be found in SEQ ID NO: 11. The sequence of the cDNA encoding the extracellular domain of LRRC15 can be found in SEQ ID NO: 12.

Antigen-Binding Protein Constructs

Any of the antigen-binding protein constructs (ABPCs) described herein can be a single polypeptide, or can include two, three, four, five, six, seven, eight, nine, or ten (the same or different) polypeptides. In some embodiments where the ABPC is a single polypeptide, the ABPC can include a single antigen-binding domain or two antigen-binding domains. In some embodiments where the ABPC is a single polypeptide and includes two antigen-binding domains, the first and second antigen-binding domains can be identical or different from each other (and can specifically bind to the same or different antigens or epitopes).

In some embodiments where the ABPC is a single polypeptide, the first antigen-binding domain and the second antigen-binding domain (if present) can each be independently selected from the group of: a VH domain, a VHH domain, a VNAR domain, and a scFv. In some embodiments where the ABPC is a single polypeptide, the antigen-binding protein construct can be a BiTe, a (scFv)2, a nanobody, a nanobody-HSA, a DART, a TandAb, a scDiabody, a scDiabody-CH3, scFv-CH-CL-scFv, a HSAbody, scDiabody-HAS, a tandem-scFv, an Adnectin, a DARPin, a fibronectin, and a DEP conjugate. Additional examples of antigen-binding domains that can be used when the ABPC is a single polypeptide are known in the art.

A V_HH domain is a single monomeric variable antibody domain that can be found in camelids. A V_{NAR} domain is a single monomeric variable antibody domain that can be found in cartilaginous fish. Non-limiting aspects of V_HH domains and V_{NAR} domains are described in, e.g., Cromie et al., *Curr. Top. Med. Chem.* 15:2543-2557, 2016; De Genst et al., *Dev. Comp. Immunol.* 30:187-198, 2006; De Meyer et al., *Trends Biotechnol.* 32:263-270, 2014; Kijanka et al., *Nanomedicine* 10:161-174, 2015; Kovaleva et al., *Expert. Opin. Biol. Ther.* 14:1527-1539, 2014; Krah et al., *Immunopharmacol. Immunotoxicol.* 38:21-28, 2016; Mujic-Delic et al., *Trends Pharmacol. Sci.* 35:247-255, 2014; Muyldermans, *J. Biotechnol.* 74:277-302, 2001; Muyldermans et al., *Trends Biochem. Sci.* 26:230-235, 2001; Muyldermans, *Ann. Rev. Biochem.* 82:775-797, 2013; Rahbarizadeh et al., *Immunol. Invest.* 40:299-338, 2011; Van Audenhove et al., *EBioMedicine* 8:40-48, 2016; Van Bockstaele et al., *Curr. Opin. Investig. Drugs* 10:1212-1224, 2009; Vincke et al., *Methods Mol. Biol.* 911:15-26, 2012; and Wesolowski et al., *Med. Microbiol. Immunol.* 198:157-174, 2009.

In some embodiments where the ABPC is a single polypeptide and includes two antigen-binding domains, the first antigen-binding domain and the second antigen-binding domain can

both be VHH domains, or at least one antigen-binding domain can be a VHH domain. In some embodiments where the ABPC is a single polypeptide and includes two antigen-binding domains, the first antigen-binding domain and the second antigen-binding domain are both V_{NAR} domains, or at least one antigen-binding domain is a V_{NAR} domain. In some embodiments where the ABPC is a single polypeptide, the first antigen-binding domain is a scFv domain. In some embodiments where the ABPC is a single polypeptide and includes two antigen-binding domains, the first antigen-binding domain and the second antigen-binding domain can both be scFv domains, or at least one antigen-binding domain can be a scFv domain.

In some embodiments, the ABPC can include two or more polypeptides (e.g., two, three, four, five, six, seven, eight, nine, or ten polypeptides). In some embodiments where the ABPC includes two or more polypeptides, two, three, four, five or six of the polypeptides of the two or more polypeptides can be identical.

In some embodiments where the ABPC includes two or more polypeptides (e.g., two, three, four, five, six, seven, eight, nine, or ten polypeptides), two or more of the polypeptides of the ABPC can assemble (e.g., non-covalently assemble) to form one or more antigen-binding domains, e.g., an antigen-binding fragment of an antibody (e.g., any of the antigen-binding fragments of an antibody described herein), a VHH-scAb, a VHH-Fab, a Dual scFab, a F(ab')2, a diabody, a crossMab, a DAF (two-in-one), a DAF (four-in-one), a DutaMab, a DT-IgG, a knobs-in-holes common light chain, a knobs-in-holes assembly, a charge pair, a Fab-arm exchange, a SEEDbody, a LUZ-Y, a Fcab, a κλ-body, an orthogonal Fab, a DVD-IgG, a IgG(H)-scFv, a scFv-(H)IgG, IgG(L)-scFv, scFv-(L)IgG, IgG(L,H)-Fv, IgG(H)-V, V(H)-IgG, IgG(L)-V, V(L)-IgG, KIH IgG-scFab, 2scFv-IgG, IgG-2scFv, scFv4-Ig, Zybody, DVI-IgG, Diabody-CH3, a triple body, a miniantibody, a minibody, a TriBi minibody, scFv-CH3 KIH, Fab-scFv, a F(ab')2-scFv2, a scFv-KIH, a Fab-scFv-Fc, a tetravalent HCAb, a scDiabody-Fc, a Diabody-Fc, a tandem scFv-Fc, a VHH-Fc, a tandem VHH-Fc, a VHH-Fc KiH, a Fab-VHH-Fc, an Intrabody, a dock and lock, an ImmTAC, an IgG-IgG conjugate, a Cov-X-Body, a scFv1-PEG-scFv2, an Adnectin, a DARPin, a fibronectin, and a DEP conjugate. See, e.g., Spiess et al., *Mol. Immunol.* 67:95-106, 2015, incorporated in its entirety herewith, for a description of these elements. Non-limiting examples of an antigen-binding fragment of an antibody include an Fv fragment, a Fab fragment, a $F(ab')_2$ fragment, and a Fab' fragment. Additional examples of an antigen-binding fragment of an antibody is an antigen-binding fragment of an IgG (e.g., an antigen-binding

fragment of IgG1, IgG2, IgG3, or IgG4) (e.g., an antigen-binding fragment of a human or humanized IgG, e.g., human or humanized IgG1, IgG2, IgG3, or IgG4); an antigen-binding fragment of an IgA (e.g., an antigen-binding fragment of IgA1 or IgA2) (e.g., an antigen-binding fragment of a human or humanized IgA, e.g., a human or humanized IgA1 or IgA2); an antigen-binding fragment of an IgD (e.g., an antigen-binding fragment of a human or humanized IgD); an antigen-binding fragment of an IgE (e.g., an antigen-binding fragment of a human or humanized IgE); or an antigen-binding fragment of an IgM (e.g., an antigen-binding fragment of a human or humanized IgM).

A "Fv" fragment includes a non-covalently-linked dimer of one heavy chain variable domain and one light chain variable domain.

A "Fab" fragment includes, the constant domain of the light chain and the first constant domain (C_{H1}) of the heavy chain, in addition to the heavy and light chain variable domains of the Fv fragment.

A "F(ab')$_2$" fragment includes two Fab fragments joined, near the hinge region, by disulfide bonds.

A "dual variable domain immunoglobulin" or "DVD-Ig" refers to multivalent and multispecific binding proteins as described, e.g., in DiGiammarino et al., *Methods Mol. Biol.* 899:145-156, 2012; Jakob et al., *MABs* 5:358-363, 2013; and U.S. Patent Nos. 7,612,181; 8,258,268; 8,586,714; 8,716,450; 8,722,855; 8,735,546; and 8,822,645, each of which is incorporated by reference in its entirety.

DARTs are described in, e.g., Garber, *Nature Reviews Drug Discovery* 13:799-801, 2014.

Additional aspects of ABPCs are known in the art.

Exemplary Properties of Antigen-Binding Domains

In some embodiments of any of the antigen-binding protein constructs (ABPCs) or antibodies described herein, the dissociation rate of the first antigen-binding domain (and optionally the second antigen-binding domain, if present) at a pH of about 4.0 to about 6.5 (e.g., about 4.0 to about 6.4, about 4.0 to about 6.3, about 4.0 to about 6.2, about 4.0 to about 6.1, about 4.0 to about 6.0, about 4.0 to about 5.9, about 4.0 to about 5.8, about 4.0 to about 5.7, about 4.0 to about 5.6, about 4.0 to about 5.5, about 4.0 to about 5.4, about 4.0 to about 5.3, about 4.0 to about 5.2, about 4.0 to about 5.1, about 4.0 to about 5.0, about 4.0 to about 4.9,

about 4.0 to about 4.8, about 4.0 to about 4.7, about 4.0 to about 4.6, about 4.0 to about 4.5, about 4.0 to about 4.4, about 4.0 to about 4.3, about 4.0 to about 4.2, about 4.0 to about 4.1, about 4.1 to about 6.5, about 4.1 to about 6.4, about 4.1 to about 6.3, about 4.1 to about 6.2, about 4.1 to about 6.1, about 4.1 to about 6.0, about 4.1 to about 5.9, about 4.1 to about 5.8, about 4.1 to about 5.7, about 4.1 to about 5.6, about 4.1 to about 5.5, about 4.1 to about 5.4, about 4.1 to about 5.3, about 4.1 to about 5.2, about 4.1 to about 5.1, about 4.1 to about 5.0, about 4.1 to about 4.9, about 4.1 to about 4.8, about 4.1 to about 4.7, about 4.1 to about 4.6, about 4.1 to about 4.5, about 4.1 to about 4.4, about 4.1 to about 4.3, about 4.1 to about 4.2, about 4.2 to about 6.5, about 4.2 to about 6.4, about 4.2 to about 6.3, about 4.2 to about 6.2, about 4.2 to about 6.1, about 4.2 to about 6.0, about 4.2 to about 5.9, about 4.2 to about 5.8, about 4.2 to about 5.7, about 4.2 to about 5.6, about 4.2 to about 5.5, about 4.2 to about 5.4, about 4.2 to about 5.3, about 4.2 to about 5.2, about 4.2 to about 5.1, about 4.2 to about 5.0, about 4.2 to about 4.9, about 4.2 to about 4.8, about 4.2 to about 4.7, about 4.2 to about 4.6, about 4.2 to about 4.5, about 4.2 to about 4.4, about 4.2 to about 4.3, about 4.3 to about 6.5, about 4.3 to about 6.4, about 4.3 to about 6.3, about 4.3 to about 6.2, about 4.3 to about 6.1, about 4.3 to about 6.0, about 4.3 to about 5.9, about 4.3 to about 5.8, about 4.3 to about 5.7, about 4.3 to about 5.6, about 4.3 to about 5.5, about 4.3 to about 5.4, about 4.3 to about 5.3, about 4.3 to about 5.2, about 4.3 to about 5.1, about 4.3 to about 5.0, about 4.3 to about 4.9, about 4.3 to about 4.8, about 4.3 to about 4.7, about 4.3 to about 4.6, about 4.3 to about 4.5, about 4.3 to about 4.4, about 4.4 to about 6.5, about 4.4 to about 6.4, about 4.4 to about 6.3, about 4.4 to about 6.2, about 4.4 to about 6.1, about 4.4 to about 6.0, about 4.4 to about 5.9, about 4.4 to about 5.8, about 4.4 to about 5.7, about 4.4 to about 5.6, about 4.4 to about 5.5, about 4.4 to about 5.4, about 4.4 to about 5.3, about 4.4 to about 5.2, about 4.4 to about 5.1, about 4.4 to about 5.0, about 4.4 to about 4.9, about 4.4 to about 4.8, about 4.4 to about 4.7, about 4.4 to about 4.6, about 4.4 to about 4.5, about 4.5 to about 6.5, about 4.5 to about 6.4, about 4.5 to about 6.3, about 4.5 to about 6.2, about 4.5 to about 6.1, about 4.5 to about 6.0, about 4.5 to about 5.9, about 4.5 to about 5.8, about 4.5 to about 5.7, about 4.5 to about 5.6, about 4.5 to about 5.5, about 4.5 to about 5.4, about 4.5 to about 5.3, about 4.5 to about 5.2, about 4.5 to about 5.1, about 4.5 to about 5.0, about 4.5 to about 4.9, about 4.5 to about 4.8, about 4.5 to about 4.7, about 4.5 to about 4.6, about 4.6 to about 6.5, about 4.6 to about 6.4, about 4.6 to about 6.3, about 4.6 to about 6.2, about 4.6 to about 6.1, about 4.6 to about 6.0,

about 4.6 to about 5.9, about 4.6 to about 5.8, about 4.6 to about 5.7, about 4.6 to about 5.6, about 4.6 to about 5.5, about 4.6 to about 5.4, about 4.6 to about 5.3, about 4.6 to about 5.2, about 4.6 to about 5.1, about 4.6 to about 5.0, about 4.6 to about 4.9, about 4.6 to about 4.8, about 4.6 to about 4.7, about 4.7 to about 6.5, about 4.7 to about 6.4, about 4.7 to about 6.3, about 4.7 to about 6.2, about 4.7 to about 6.1, about 4.7 to about 6.0, about 4.7 to about 5.9, about 4.7 to about 5.8, about 4.7 to about 5.7, about 4.7 to about 5.6, about 4.7 to about 5.5, about 4.7 to about 5.4, about 4.7 to about 5.3, about 4.7 to about 5.2, about 4.7 to about 5.1, about 4.7 to about 5.0, about 4.7 to about 4.9, about 4.7 to about 4.8, about 4.8 to about 6.5, about 4.8 to about 6.4, about 4.8 to about 6.3, about 4.8 to about 6.2, about 4.8 to about 6.1, about 4.8 to about 6.0, about 4.8 to about 5.9, about 4.8 to about 5.8, about 4.8 to about 5.7, about 4.8 to about 5.6, about 4.8 to about 5.5, about 4.8 to about 5.4, about 4.8 to about 5.3, about 4.8 to about 5.2, about 4.8 to about 5.1, about 4.8 to about 5.0, about 4.8 to about 4.9, about 4.9 to about 6.5, about 4.9 to about 6.4, about 4.9 to about 6.3, about 4.9 to about 6.2, about 4.9 to about 6.1, about 4.9 to about 6.0, about 4.9 to about 5.9, about 4.9 to about 5.8, about 4.9 to about 5.7, about 4.9 to about 5.6, about 4.9 to about 5.5, about 4.9 to about 5.4, about 4.9 to about 5.3, about 4.9 to about 5.2, about 4.9 to about 5.1, about 4.9 to about 5.0, about 5.0 to about 6.5, about 5.0 to about 6.4, about 5.0 to about 6.3, about 5.0 to about 6.2, about 5.0 to about 6.1, about 5.0 to about 6.0, about 5.0 to about 5.9, about 5.0 to about 5.8, about 5.0 to about 5.7, about 5.0 to about 5.6, about 5.0 to about 5.5, about 5.0 to about 5.4, about 5.0 to about 5.3, about 5.0 to about 5.2, about 5.0 to about 5.1, about 5.1 to about 6.5, about 5.1 to about 6.4, about 5.1 to about 6.3, about 5.1 to about 6.2, about 5.1 to about 6.1, about 5.1 to about 6.0, about 5.1 to about 5.9, about 5.1 to about 5.8, about 5.1 to about 5.7, about 5.1 to about 5.6, about 5.1 to about 5.5, about 5.1 to about 5.4, about 5.1 to about 5.3, about 5.1 to about 5.2, about 5.2 to about 6.5, about 5.2 to about 6.4, about 5.2 to about 6.3, about 5.2 to about 6.2, about 5.2 to about 6.1, about 5.2 to about 6.0, about 5.2 to about 5.9, about 5.2 to about 5.8, about 5.2 to about 5.7, about 5.2 to about 5.6, about 5.2 to about 5.5, about 5.2 to about 5.4, about 5.2 to about 5.3, about 5.3 to about 6.5, about 5.3 to about 6.4, about 5.3 to about 6.3, about 5.3 to about 6.2, about 5.3 to about 6.1, about 5.3 to about 6.0, about 5.3 to about 5.9, about 5.3 to about 5.8, about 5.3 to about 5.7, about 5.3 to about 5.6, about 5.3 to about 5.5, about 5.3 to about 5.4, about 5.4 to about 6.5, about 5.4 to about 6.4, about 5.4 to about 6.3, about 5.4 to about 6.2, about 5.4 to about 6.1, about 5.4 to about 6.0,

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In some embodiments of any of the antigen-binding protein constructs (ABPCs) or antibodies described herein, the dissociation constant (K_D) of the first antigen-binding domain (and optionally the second antigen-binding domain, if present) at a pH of about 4.0 to about 6.5 (e.g., any of the subranges of this range described herein) is greater (e.g., detectably greater) (e.g., at least 5% greater, at least 10% greater, at least 15% greater, at least 20% greater, at least 25% greater, at least 30% greater, at least 35% greater, at least 40% greater, at least 45% greater, at least 50% greater, at least 55% greater, at least 60% greater, at least 65% greater, at least 70% greater, at least 80% greater, at least 85% greater, at least 90% greater, at least 95% greater, at least 100% greater, at least 120% greater, at least 140% greater, at least 160% greater, at least 180% greater, at least 200% greater, at least 220% greater, at least 240% greater, at least 260% greater, at least 280% greater, at least 300% greater, at least 320% greater, at least 340% greater, at least 360% greater, at least 380% greater, at least 400% greater, at least 420% greater, at least 440% greater, at least 460% greater, at least 480% greater, at least 500% greater, at least 1,000% greater, at least 2,000% greater, at least 3,000% greater, at least 4,000% greater, at least 5,000% greater, at least 6,000% greater, at least 7,000% greater, at least 8,000% greater, at least 9,000% greater, or at least 10,000% greater, or about 5% greater to about 10,000% greater, about 5% greater to about 9,000% greater, about 5% greater to about 8,000% greater, about 5% greater to about 7,000% greater, about 5% greater to about 6,000% greater, about 5% greater to about 5,000% greater, about 5% greater to about 4,000% greater, about 5% greater to about 3,000% greater, about 5% greater to about 2,000% greater, about 5% greater to about 1,000% greater, about 5% greater to about 500% greater, about 5% greater to about 480% greater, about 5% greater to about 460% greater, about 5% greater to about 440% greater, about 5% greater to about 420% greater, about 5% greater to about 400% greater, about 5% greater to about 380% greater, about 5% greater to about 360% greater, about 5% greater to about 340% greater, about 5% greater to about 320% greater, about 5% greater to about 300% greater, about 5% greater to about 280% greater, about 5% greater to about 260% greater, about 5% greater to about 240%

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In some embodiments of any of the antigen-binding protein constructs (ABPCs) or antibodies described herein, the dissociation rate of the first antigen-binding domain (and optionally the second antigen-binding domain, if present) at a pH of about 4.0 to about 6.5 (e.g., any of the subranges of this range described herein) is faster (e.g., at least 0.2-fold faster, at least 0.3-fold, at least 0.4-fold, at least 0.5-fold, at least 0.6-fold, at least 0.7-fold, at least 0.8-fold, at

least 0.9-fold, at least 1.0-fold, at least 1.5-fold, at least 2.0-fold, at least 2.5-fold, at least 3.0 fold, at least 3.5-fold, at least 4.0-fold, at least 4.5-fold, at least 5.0-fold, at least 5.5-fold, at least 6.0-fold, at least 6.5-fold, at least 7.0-fold, at least 7.5-fold, at least 8.0-fold, at least 8.5-fold, at least 9.0-fold, at least 9.5-fold, at least 10.0-fold, at least 10.5-fold, at least 11.0-fold, at least 11.5-fold, at least 12.0-fold, at least 12.5-fold, at least 13.0-fold, at least 13.5-fold, at least 14.0-fold, at least 14.5-fold, at least 15.0-fold, at least 15.5-fold, at least 16.0-fold, at least 16.5-fold, at least 17.0-fold, at least 17.5-fold, at least 18.0-fold, at least 18.5-fold, at least 19.0-fold, at least 19.5-fold, at least 20-fold, at least 25-fold, at least 30-fold, at least 35-fold, at least 40-fold, at least 45-fold, at least 50-fold, at least 55-fold, at least 60-fold, at least 65-fold, at least 70-fold, at least 75-fold, at least 80-fold, at least 85-fold, at least 90-fold, at least 95-fold, or at least 100-fold faster or about 0.2-fold to about 100-fold faster, about 0.2-fold to about 90-fold faster, about 0.2-fold to about 80-fold faster, about 0.2-fold to about 70-fold faster, about 0.2-fold to about 60-fold faster, about 0.2-fold to about 50-fold faster, about 0.2-fold to about 40-fold faster, about 0.2-fold to about 30-fold faster, about 0.2-fold to about 20-fold faster, about 0.2-fold to about 15-fold faster, about 0.2-fold to about 10-fold faster, about 0.2-fold to about 5-fold, about 0.2-fold to about 2-fold faster, about 0.2-fold to about 1-fold faster, about 0.2-fold to about 0.5-fold faster, about 0.5-fold to about 100-fold faster, about 0.5-fold to about 90-fold faster, about 0.5-fold to about 80-fold faster, about 0.5-fold to about 70-fold faster, about 0.5-fold to about 60-fold faster, about 0.5-fold to about 50-fold faster, about 0.5-fold to about 40-fold faster, about 0.5-fold to about 30-fold faster, about 0.5-fold to about 20-fold faster, about 0.5-fold to about 15-fold faster, about 0.5-fold to about 10-fold faster, about 0.5-fold to about 5-fold, about 0.5-fold to about 2-fold faster, about 0.5-fold to about 1-fold faster, about 1-fold to about 100-fold faster, about 1-fold to about 90-fold faster, about 1-fold to about 80-fold faster, about 1-fold to about 70-fold faster, about 1-fold to about 60-fold faster, about 1-fold to about 50-fold faster, about 1-fold to about 40-fold faster, about 1-fold to about 30-fold faster, about 1-fold to about 20-fold faster, about 1-fold to about 15-fold faster, about 1-fold to about 10-fold faster, about 1-fold to about 5-fold, about 1-fold to about 2-fold faster, about 2-fold to about 100-fold faster, about 2-fold to about 90-fold faster, about 2-fold to about 80-fold faster, about 2-fold to about 70-fold faster, about 2-fold to about 60-fold faster, about 2-fold to about 50-fold faster, about 2-fold to about 40-fold faster, about 2-fold to about 30-fold faster, about 2-fold to about 20-fold faster, about 2-fold to about 15-fold faster, about 2-fold to about 10-fold faster, about 2-fold to about 5-fold,

about 5-fold to about 100-fold faster, about 5-fold to about 90-fold faster, about 5-fold to about 80-fold faster, about 5-fold to about 70-fold faster, about 5-fold to about 60-fold faster, about 5-fold to about 50-fold faster, about 5-fold to about 40-fold faster, about 5-fold to about 30-fold faster, about 5-fold to about 20-fold faster, about 5-fold to about 15-fold faster, about 5-fold to about 10-fold faster, about 10-fold to about 100-fold faster, about 10-fold to about 90-fold faster, about 10-fold to about 80-fold faster, about 10-fold to about 70-fold faster, about 10-fold to about 60-fold faster, about 10-fold to about 50-fold faster, about 10-fold to about 40-fold faster, about 10-fold to about 30-fold faster, about 10-fold to about 20-fold faster, about 10-fold to about 15-fold faster, about 15-fold to about 100-fold faster, about 15-fold to about 90-fold faster, about 15-fold to about 80-fold faster, about 15-fold to about 70-fold faster, about 15-fold to about 60-fold faster, about 15-fold to about 50-fold faster, about 15-fold to about 40-fold faster, about 15-fold to about 30-fold faster, about 15-fold to about 20-fold faster, about 20-fold to about 100-fold faster, about 20-fold to about 90-fold faster, about 20-fold to about 80-fold faster, about 20-fold to about 70-fold faster, about 20-fold to about 60-fold faster, about 20-fold to about 50-fold faster, about 20-fold to about 40-fold faster, about 20-fold to about 30-fold faster, about 30-fold to about 100-fold faster, about 30-fold to about 90-fold faster, about 30-fold to about 80-fold faster, about 30-fold to about 70-fold faster, about 30-fold to about 60-fold faster, about 30-fold to about 50-fold faster, about 30-fold to about 40-fold faster, about 40-fold to about 100-fold faster, about 40-fold to about 90-fold faster, about 40-fold to about 80-fold faster, about 40-fold to about 70-fold faster, about 40-fold to about 60-fold faster, about 40-fold to about 50-fold faster, about 50-fold to about 100-fold faster, about 50-fold to about 90-fold faster, about 50-fold to about 80-fold faster, about 50-fold to about 70-fold faster, about 50-fold to about 60-fold faster, about 60-fold to about 100-fold faster, about 60-fold to about 90-fold faster, about 60-fold to about 80-fold faster, about 60-fold to about 70-fold faster, about 70-fold to about 100-fold faster, about 70-fold to about 90-fold faster, about 70-fold to about 80-fold faster, about 80-fold to about 100-fold faster, about 80-fold to about 90-fold faster, or about 90-fold to about 100-fold faster) than the dissociation rate at a pH of about 7.0 to about 8.0 (e.g., or any of the subranges of this range described herein).

In some embodiments of any of the antigen-binding protein constructs (ABPCs) or antibodies described herein, the dissociation constant (K_D) of the first antigen-binding domain (and optionally the second antigen-binding domain, if present) at a pH of about 4.0 to about 6.5

(e.g., any of the subranges of this range described herein) is greater (e.g., detectably greater) (e.g., at least 0.2-fold greater, at least 0.3-fold, at least 0.4-fold, at least 0.5-fold, at least 0.6-fold, at least 0.7-fold, at least 0.8-fold, at least 0.9-fold, at least 1.0-fold, at least 1.5-fold, at least 2.0-fold, at least 2.5-fold, at least 3.0 fold, at least 3.5-fold, at least 4.0-fold, at least 4.5-fold, at least 5.0-fold, at least 5.5-fold, at least 6.0-fold, at least 6.5-fold, at least 7.0-fold, at least 7.5-fold, at least 8.0-fold, at least 8.5-fold, at least 9.0-fold, at least 9.5-fold, at least 10.0-fold, at least 10.5-fold, at least 11.0-fold, at least 11.5-fold, at least 12.0-fold, at least 12.5-fold, at least 13.0-fold, at least 13.5-fold, at least 14.0-fold, at least 14.5-fold, at least 15.0-fold, at least 15.5-fold, at least 16.0-fold, at least 16.5-fold, at least 17.0-fold, at least 17.5-fold, at least 18.0-fold, at least 18.5-fold, at least 19.0-fold, at least 19.5-fold, at least 20-fold greater, at least 25-fold greater, at least 30-fold greater, at least 35-fold greater, at least 40-fold greater, at least 45-fold greater, at least 50-fold greater, at least 55-fold greater, at least 60-fold greater, at least 65-fold greater, at least 70-fold greater, at least 75-fold greater, at least 80-fold greater, at least 85-fold greater, at least 90-fold greater, at least 95-fold greater, or at least 100-fold greater, or about 0.2-fold to about 100-fold greater, about 0.2-fold to about 90-fold greater, about 0.2-fold to about 80-fold greater, about 0.2-fold to about 70-fold greater, about 0.2-fold to about 60-fold greater, about 0.2-fold to about 50-fold greater, about 0.2-fold to about 40-fold greater, about 0.2-fold to about 30-fold greater, about 0.2-fold to about 25-fold greater, about 0.2-fold to about 20-fold greater, about 0.2-fold to about 15-fold greater, about 0.2-fold to about 10-fold greater, about 0.2-fold to about 8-fold greater, about 0.2-fold to about 5-fold greater, about 0.2-fold to about 2-fold greater, about 0.2-fold to about 1-fold greater, about 0.2-fold to about 0.5-fold greater, about 0.5-fold to about 100-fold greater, about 0.5-fold to about 90-fold greater, about 0.5-fold to about 80-fold greater, about 0.5-fold to about 70-fold greater, about 0.5-fold to about 60-fold greater, about 0.5-fold to about 50-fold greater, about 0.5-fold to about 40-fold greater, about 0.5-fold to about 30-fold greater, about 0.5-fold to about 25-fold greater, about 0.5-fold to about 20-fold greater, about 0.5-fold to about 15-fold greater, about 0.5-fold to about 10-fold greater, about 0.5-fold to about 8-fold greater, about 0.5-fold to about 5-fold greater, about 0.5-fold to about 2-fold greater, about 0.5-fold to about 1-fold greater, about 1-fold to about 100-fold greater, about 1-fold to about 90-fold greater, about 1-fold to about 80-fold greater, about 1-fold to about 70-fold greater, about 1-fold to about 60-fold greater, about 1-fold to about 50-fold greater, about 1-fold to about 40-fold greater, about 1-fold to about 30-fold greater, about 1-fold to about 25-fold greater, about

1-fold to about 20-fold greater, about 1-fold to about 15-fold greater, about 1-fold to about 10-fold greater, about 1-fold to about 8-fold greater, about 1-fold to about 5-fold greater, about 1-fold to about 2-fold greater, about 2-fold to about 100-fold greater, about 2-fold to about 90-fold greater, about 2-fold to about 80-fold greater, about 2-fold to about 70-fold greater, about 2-fold to about 60-fold greater, about 2-fold to about 50-fold greater, about 2-fold to about 40-fold greater, about 2-fold to about 30-fold greater, about 2-fold to about 25-fold greater, about 2-fold to about 20-fold greater, about 2-fold to about 15-fold greater, about 2-fold to about 10-fold greater, about 2-fold to about 8-fold greater, about 2-fold to about 5-fold greater, about 5-fold to about 100-fold greater, about 5-fold to about 90-fold greater, about 5-fold to about 80-fold greater, about 5-fold to about 70-fold greater, about 5-fold to about 60-fold greater, about 5-fold to about 50-fold greater, about 5-fold to about 40-fold greater, about 5-fold to about 30-fold greater, about 5-fold to about 25-fold greater, about 5-fold to about 20-fold greater, about 5-fold to about 15-fold greater, about 5-fold to about 10-fold greater, about 5-fold to about 8-fold greater, about 8-fold to about 100-fold greater, about 8-fold to about 90-fold greater, about 8-fold to about 80-fold greater, about 8-fold to about 70-fold greater, about 8-fold to about 60-fold greater, about 8-fold to about 50-fold greater, about 8-fold to about 40-fold greater, about 8-fold to about 30-fold greater, about 8-fold to about 25-fold greater, about 8-fold to about 20-fold greater, about 8-fold to about 15-fold greater, about 8-fold to about 10-fold greater, about 10-fold to about 100-fold greater, about 10-fold to about 90-fold greater, about 10-fold to about 80-fold greater, about 10-fold to about 70-fold greater, about 10-fold to about 60-fold greater, about 10-fold to about 50-fold greater, about 10-fold to about 40-fold greater, about 10-fold to about 30-fold greater, about 10-fold to about 25-fold greater, about 10-fold to about 20-fold greater, about 10-fold to about 15-fold greater, about 15-fold to about 100-fold greater, about 15-fold to about 90-fold greater, about 15-fold to about 80-fold greater, about 15-fold to about 70-fold greater, about 15-fold to about 60-fold greater, about 15-fold to about 50-fold greater, about 15-fold to about 40-fold greater, about 15-fold to about 30-fold greater, about 15-fold to about 25-fold greater, about 15-fold to about 20-fold greater, about 20-fold to about 100-fold greater, about 20-fold to about 90-fold greater, about 20-fold to about 80-fold greater, about 20-fold to about 70-fold greater, about 20-fold to about 60-fold greater, about 20-fold to about 50-fold greater, about 20-fold to about 40-fold greater, about 20-fold to about 30-fold greater, about 20-fold to about 25-fold greater, about 25-fold to about 100-fold greater, about 25-fold to about 90-fold greater,

about 25-fold to about 80-fold greater, about 25-fold to about 70-fold greater, about 25-fold to about 60-fold greater, about 25-fold to about 50-fold greater, about 25-fold to about 40-fold greater, about 25-fold to about 30-fold greater, about 30-fold to about 100-fold greater, about 30-fold to about 90-fold greater, about 30-fold to about 80-fold greater, about 30-fold to about 70-fold greater, about 30-fold to about 60-fold greater, about 30-fold to about 50-fold greater, about 30-fold to about 40-fold greater, about 40-fold to about 100-fold greater, about 40-fold to about 90-fold greater, about 40-fold to about 80-fold greater, about 40-fold to about 70-fold greater, about 40-fold to about 60-fold greater, about 40-fold to about 50-fold greater, about 50-fold to about 100-fold greater, about 50-fold to about 90-fold greater, about 50-fold to about 80-fold greater, about 50-fold to about 70-fold greater, about 50-fold to about 60-fold greater, about 60-fold to about 100-fold greater, about 60-fold to about 90-fold greater, about 60-fold to about 80-fold greater, about 60-fold to about 70-fold greater, about 70-fold to about 100-fold greater, about 70-fold to about 90-fold greater, about 70-fold to about 80-fold greater, about 80-fold to about 100-fold greater, about 80-fold to about 90-fold greater, or about 90-fold to about 100-fold greater), than the K_D at a pH of about 7.0 to about 8.0 (e.g., any of the subranges of this range described herein).

In some embodiments of the ABPCs that include a first antigen-binding domain and a second antigen-binding domain, the first and second antigen-binding domains are identical or are at least 80% identical (e.g., at least 82%, at least 84%, at least 86%, at least 88%, at least 90%, at least 91%, at least 92%, at least 93%, at least 94%, at least 95%, at least 96%, at least 97%, at least 98%, or at least 99% identical) in amino acid sequence to each other. In some embodiments, the ABPCs that include a first antigen-binding domain and a second antigen-binding domain, the first antigen-binding domain and the second antigen-binding domain have a sequence that is less than 80% identical (e.g., less than 75% identical, less than 70% identical, less than 65% identical, less than 60% identical, less than 55% identical, less than 50% identical, less than 45% identical, less than 40% identical, less than 35% identical, less than 30% identical, less than 25% identical, less than 20% identical, less than 15% identical, less than 10% identical, or less than 5% identical) to each other. In some embodiments of ABPCs that include a first and a second antigen-binding domain, the first and second antigen-binding domain binds two different epitopes (e.g., two different epitopes on LRRC15 or the first antigen-binding domain

binding specifically to LRRC15 and the second antigen-binding domain binding to an antigen other than LRRC15).

In some embodiments of any of the ABPCs or antibodies described herein, the K_D of the first antigen-binding domain (and optionally, the second antigen-binding domain if present) at a pH of about 7.0 to about 8.0 (e.g., any of the subranges of this range described herein) is between about 1 pM to about 5 μM (e.g., about 1 pM to about 2 μM, about 1 pM to about 1 μM, about 1 pM to about 500 nM, about 1 pM to about 250 nM, about 1 pM to about 240 nM, about 1 pM to about 230 nM, about 1 pM to about 220 nM, about 1 pM to about 210 nM, about 1 pM to about 200 nM, about 1 pM to about 190 nM, about 1 pM to about 180 nM, about 1 pM to about 170 nM, about 1 pM to about 160 nM, about 1 pM to about 150 nM, about 1 pM to about 140 nM, about 1 pM to about 130 nM, about 1 pM to about 120 nM, about 1 pM to about 110 nM, about 1 pM to about 100 nM, about 1 pM to about 95 nM, about 1 pM to about 90 nM, about 1 pM to about 85 nM, about 1 pM to about 80 nM, about 1 pM to about 75 nM, about 1 pM to about 70 nM, about 1 pM to about 65 nM, about 1 pM to about 60 nM, about 1 pM to about 55 nM, about 1 pM to about 50 nM, about 1 pM to about 45 nM, about 1 pM to about 40 nM, about 1 pM to about 35 nM, about 1 pM to about 30 nM, about 1 pM to about 25 nM, about 1 pM to about 20 nM, about 1 pM to about 15 nM, about 1 pM to about 10 nM, about 1 pM to about 5 nM, about 1 pM to about 2 nM, about 1 pM to about 1 nM, about 1 pM to about 950 pM, about 1 pM to about 900 pM, about 1 pM to about 850 pM, about 1 pM to about 800 pM, about 1 pM to about 750 pM, about 1 pM to about 700 pM, about 1 pM to about 650 pM, about 1 pM to about 600 pM, about 1 pM to about 550 pM, about 1 pM to about 500 pM, about 1 pM to about 450 pM, about 1 pM to about 400 pM, about 1 pM to about 350 pM, about 1 pM to about 300 pM, about 1 pM to about 250 pM, about 1 pM to about 200 pM, about 1 pM to about 150 pM, about 1 pM to about 100 pM, about 1 pM to about 90 pM, about 1 pM to about 80 pM, about 1 pM to about 70 pM, about 1 pM to about 60 pM, about 1 pM to about 50 pM, about 1 pM to about 40 pM, about 1 pM to about 30 pM, about 1 pM to about 20 pM, about 1 pM to about 10 pM, about 1 pM to about 5 pM, about 1 pM to about 4 pM, about 1 pM to about 3 pM, about 1 pM to about 2 pM, about 2 pM to about 5 μM, about 2 pM to about 2 μM, about 2 pM to about 1 μM, about 2 pM to about 500 nM, about 2 pM to about 250 nM, about 2 pM to about 240 nM, about 2 pM to about 230 nM, about 2 pM to about 220 nM, about 2 pM to about 210 nM, about 2 pM to about 200 nM, about 2 pM to about 190 nM, about 2 pM to about 180 nM, about 2 pM to about 170 nM,

about 2 pM to about 160 nM, about 2 pM to about 150 nM, about 2 pM to about 140 nM, about 2 pM to about 130 nM, about 2 pM to about 120 nM, about 2 pM to about 110 nM, about 2 pM to about 100 nM, about 2 pM to about 95 nM, about 2 pM to about 90 nM, about 2 pM to about 85 nM, about 2 pM to about 80 nM, about 2 pM to about 75 nM, about 2 pM to about 70 nM, about 2 pM to about 65 nM, about 2 pM to about 60 nM, about 2 pM to about 55 nM, about 2 pM to about 50 nM, about 2 pM to about 45 nM, about 2 pM to about 40 nM, about 2 pM to about 35 nM, about 2 pM to about 30 nM, about 2 pM to about 25 nM, about 2 pM to about 20 nM, about 2 pM to about 15 nM, about 2 pM to about 10 nM, about 2 pM to about 5 nM, about 2 pM to about 2 nM, about 2 pM to about 1 nM, about 2 pM to about 950 pM, about 2 pM to about 900 pM, about 2 pM to about 850 pM, about 2 pM to about 800 pM, about 2 pM to about 750 pM, about 2 pM to about 700 pM, about 2 pM to about 650 pM, about 2 pM to about 600 pM, about 2 pM to about 550 pM, about 2 pM to about 500 pM, about 2 pM to about 450 pM, about 2 pM to about 400 pM, about 2 pM to about 350 pM, about 2 pM to about 300 pM, about 2 pM to about 250 pM, about 2 pM to about 200 pM, about 2 pM to about 150 pM, about 2 pM to about 100 pM, about 2 pM to about 90 pM, about 2 pM to about 80 pM, about 2 pM to about 70 pM, about 2 pM to about 60 pM, about 2 pM to about 50 pM, about 2 pM to about 40 pM, about 2 pM to about 30 pM, about 2 pM to about 20 pM, about 2 pM to about 10 pM, about 2 pM to about 5 pM, about 2 pM to about 4 pM, about 2 pM to about 3 pM, about 5 pM to about 5 μM, about 5 pM to about 2 μM, about 5 pM to about 1 μM, about 5 pM to about 500 nM, about 5 pM to about 250 nM, about 5 pM to about 240 nM, about 5 pM to about 230 nM, about 5 pM to about 220 nM, about 5 pM to about 210 nM, about 5 pM to about 200 nM, about 5 pM to about 190 nM, about 5 pM to about 180 nM, about 5 pM to about 170 nM, about 5 pM to about 160 nM, about 5 pM to about 150 nM, about 5 pM to about 140 nM, about 5 pM to about 130 nM, about 5 pM to about 120 nM, about 5 pM to about 110 nM, about 5 pM to about 100 nM, about 5 pM to about 95 nM, about 5 pM to about 90 nM, about 5 pM to about 85 nM, about 5 pM to about 80 nM, about 5 pM to about 75 nM, about 5 pM to about 70 nM, about 5 pM to about 65 nM, about 5 pM to about 60 nM, about 5 pM to about 55 nM, about 5 pM to about 50 nM, about 5 pM to about 45 nM, about 5 pM to about 40 nM, about 5 pM to about 35 nM, about 5 pM to about 30 nM, about 5 pM to about 25 nM, about 5 pM to about 20 nM, about 5 pM to about 15 nM, about 5 pM to about 10 nM, about 5 pM to about 5 nM, about 5 pM to about 2 nM, about 5 pM to about 1 nM, about 5 pM to about 950 pM, about 5 pM to about 900 pM, about 5 pM to about 850

pM, about 5 pM to about 800 pM, about 5 pM to about 750 pM, about 5 pM to about 700 pM, about 5 pM to about 650 pM, about 5 pM to about 600 pM, about 5 pM to about 550 pM, about 5 pM to about 500 pM, about 5 pM to about 450 pM, about 5 pM to about 400 pM, about 5 pM to about 350 pM, about 5 pM to about 300 pM, about 5 pM to about 250 pM, about 5 pM to about 200 pM, about 5 pM to about 150 pM, about 5 pM to about 100 pM, about 5 pM to about 90 pM, about 5 pM to about 80 pM, about 5 pM to about 70 pM, about 5 pM to about 60 pM, about 5 pM to about 50 pM, about 5 pM to about 40 pM, about 5 pM to about 30 pM, about 5 pM to about 20 pM, about 5 pM to about 10 pM, about 10 pM to about 5 μM, about 10 pM to about 2 μM, about 10 pM to about 1 μM, about 10 pM to about 500 nM, about 10 pM to about 250 nM, about 10 pM to about 240 nM, about 10 pM to about 230 nM, about 10 pM to about 220 nM, about 10 pM to about 210 nM, about 10 pM to about 200 nM, about 10 pM to about 190 nM, about 10 pM to about 180 nM, about 10 pM to about 170 nM, about 10 pM to about 160 nM, about 10 pM to about 150 nM, about 10 pM to about 140 nM, about 10 pM to about 130 nM, about 10 pM to about 120 nM, about 10 pM to about 110 nM, about 10 pM to about 100 nM, about 10 pM to about 95 nM, about 10 pM to about 90 nM, about 10 pM to about 85 nM, about 10 pM to about 80 nM, about 10 pM to about 75 nM, about 10 pM to about 70 nM, about 10 pM to about 65 nM, about 10 pM to about 60 nM, about 10 pM to about 55 nM, about 10 pM to about 50 nM, about 10 pM to about 45 nM, about 10 pM to about 40 nM, about 10 pM to about 35 nM, about 10 pM to about 30 nM, about 10 pM to about 25 nM, about 10 pM to about 20 nM, about 10 pM to about 15 nM, about 10 pM to about 10 nM, about 10 pM to about 5 nM, about 10 pM to about 2 nM, about 10 pM to about 1 nM, about 10 pM to about 950 pM, about 10 pM to about 900 pM, about 10 pM to about 850 pM, about 10 pM to about 800 pM, about 10 pM to about 750 pM, about 10 pM to about 700 pM, about 10 pM to about 650 pM, about 10 pM to about 600 pM, about 10 pM to about 550 pM, about 10 pM to about 500 pM, about 10 pM to about 450 pM, about 10 pM to about 400 pM, about 10 pM to about 350 pM, about 10 pM to about 300 pM, about 10 pM to about 250 pM, about 10 pM to about 200 pM, about 10 pM to about 150 pM, about 10 pM to about 100 pM, about 10 pM to about 90 pM, about 10 pM to about 80 pM, about 10 pM to about 70 pM, about 10 pM to about 60 pM, about 10 pM to about 50 pM, about 10 pM to about 40 pM, about 10 pM to about 30 pM, about 10 pM to about 20 pM, about 15 pM to about 5 μM, about 15 pM to about 2 μM, about 15 pM to about 1 μM, about 15 pM to about 500 nM, about 15 pM to about 250 nM, about 15 pM to about 240 nM, about 15 pM

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In some embodiments of any of the ABPCs or antibodies described herein, the K_D of the first antigen-binding domain (and optionally, the second antigen-binding domain, if present) at a pH of about 4.0 to about 6.5 (e.g., any of the subranges of this range described herein) can be greater than 1 nM (e.g., between about 1 nM to about 1 mM, about 1 nM to about 900 μM, about 1 nM to about 800 μM, about 1 nM to about 700 μM, about 1 nM to about 600 μM, about 1 nM to about 500 μM, about 1 nM to about 400 μM, about 1 nM to about 300 μM, about 1 nM to about 200 μM, about 1 nM to about 100 μM, about 1 nM to about 90 μM, about 1 nM to about 80 μM, about 1 nM to about 70 μM, about 1 nM to about 60 μM, about 1 nM to about 50 μM, about 1 nM to about 40 μM, about 1 nM to about 30 μM, about 1 nM to about 20 μM, about 1 nM to about 10 μM, about 1 nM to about 5 μM, about 1 nM to about 4 μM, about 1 nM to about 2 μM, about 1 nM to about 1 μM, about 1 nM to about 900 nM, about 1 nM to about 800 nM, about 1 nM to about 700 nM, about 1 nM to about 600 nM, about 1 nM to about 500 nM, about 1 nM to about 400 nM, about 1 nM to about 300 nM, about 1 nM to about 200 nM, about 1 nM to about 100 nM, about 1 nM to about 90 nM, about 1 nM to about 80 nM, about 1 nM to about 70 nM, about 1 nM to about 60 nM, about 1 nM to about 50 nM, about 1 nM to about 40 nM, about 1 nM to about 30 nM, about 2 nM to about 1 mM, about 2 nM to about 900 μM, about 2 nM to about 800 μM, about 2 nM to about 700 μM, about 2 nM to about 600 μM, about 2 nM to about 500 μM, about 2 nM to about 400 μM, about 2 nM to about 300 μM, about 2 nM to about 200 μM, about 2 nM to about 100 μM, about 2 nM to about 90 μM, about 2 nM to about 80 μM, about 2 nM to about 70 μM, about 2 nM to about 60 μM, about 2 nM to about 50 μM, about 2 nM to about 40 μM, about 2 nM to about 30 μM, about 2 nM to about 20 μM, about 2 nM to about 10 μM, about 2 nM to about 5 μM, about 2 nM to about 4 μM, about 2 nM to about 2 μM, about 2 nM to about 1 μM, about 2 nM to about 900 nM, about 2 nM to about 800 nM, about 2 nM to about 700 nM, about 2 nM to about 600 nM, about 2 nM to about 500 nM, about 2 nM to

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A variety of different methods known in the art can be used to determine the K_D values of any of the antigen-binding protein constructs described herein (e.g., an electrophoretic mobility shift assay, a filter binding assay, surface plasmon resonance, a biomolecular binding kinetics assay, in vitro binding assay on antigen-expressing cells, etc.).

In some embodiments, the half-life of any of the antibodies described herein, the half-life of the antibody in vivo is increased (e.g., a detectable increase) relatively to a control antibody (e.g., the same antibody but not including the amino acid substitutions or insertions in the CH1-CH2-CH3 of the heavy chain or any the amino acid substitutions in the C_L domain). In some

embodiments, one or more amino acid substitutions can increase the half-life of any of the antibodies described herein. Non-limiting examples of amino acid substitutions that can increase the half-life of the antibody in vivo include a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317 of SEQ ID NO: 351 or SEQ ID NO: 352 and/or a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139 of SEQ ID NO: 351 or SEQ ID NO: 352. In some embodiments, the half-life of the antibody in vivo is increased (e.g., a detectable increase) (e.g., at least a 1% increase, at least a 5% increase, at least a 10% increase, at least a 15% increase, at least a 20% increase, at least a 25% increase, at least a 30% increase, at least a 35% increase, at least a 40% increase, at least a 45% increase, at least a 50% increase, at least a 55% increase, at least a 60% increase, at least a 65% increase, at least a 70% increase, at least a 75% increase, at least a 80% increase, at least a 85% increase, at least a 90% increase, at least a 95% increase, or at least a 99% increase, or about a 1% increase to about a 99% increase, about a 1% increase to about a 95% increase, about a 1% increase to about a 90% increase, about a 1% increase to about a 85% increase, about a 1% increase to about a 80% increase, about a 1% increase to about a 75% increase, about a 1% increase to about a 70% increase, about a 1% increase to about a 65% increase, about a 1% increase to about a 60% increase, about a 1% increase to about a 55% increase, about a 1% increase to about a 50% increase, about a 1% increase to about a 45% increase, about a 1% increase to about a 40% increase, about a 1% increase to about a 35% increase, about a 1% increase to about a 30% increase, about a 1% increase to about a 25% increase, about a 1% increase to about a 20% increase, about a 1% increase to about a 15% increase, about a 1% increase to about a 10% increase, about a 1% increase to about a 5% increase, about a 5% increase to about a 99% increase, about a 5% increase to about a 95% increase, about a 5% increase to about a 90% increase, about a 5% increase to about a 85% increase, about a 5% increase to about a 80% increase, about a 5% increase to about a 75% increase, about a 5% increase to about a 70% increase, about a 5% increase to about a 65% increase, about a 5% increase to about a 60% increase, about a 5% increase to about a 55% increase, about a 5% increase to about a 50% increase, about a 5% increase to about a 45% increase, about a 5% increase to about a 40% increase, about a 5% increase to about a 35% increase, about a 5% increase to about a 30% increase, about a 5% increase to about a 25%

increase, about a 5% increase to about a 20% increase, about a 5% increase to about a 15% increase, about a 5% increase to about a 10% increase, about a 10% increase to about a 99% increase, about a 10% increase to about a 95% increase, about a 10% increase to about a 90% increase, about a 10% increase to about a 85% increase, about a 10% increase to about a 80% increase, about a 10% increase to about a 75% increase, about a 10% increase to about a 70% increase, about a 10% increase to about a 65% increase, about a 10% increase to about a 60% increase, about a 10% increase to about a 55% increase, about a 10% increase to about a 50% increase, about a 10% increase to about a 45% increase, about a 10% increase to about a 40% increase, about a 10% increase to about a 35% increase, about a 10% increase to about a 30% increase, about a 10% increase to about a 25% increase, about a 10% increase to about a 20% increase, about a 10% increase to about a 15% increase, about a 15% increase to about a 99% increase, about a 15% increase to about a 95% increase, about a 15% increase to about a 90% increase, about a 15% increase to about a 85% increase, about a 15% increase to about a 80% increase, about a 15% increase to about a 75% increase, about a 15% increase to about a 70% increase, about a 15% increase to about a 65% increase, about a 15% increase to about a 60% increase, about a 15% increase to about a 55% increase, about a 15% increase to about a 50% increase, about a 15% increase to about a 45% increase, about a 15% increase to about a 40% increase, about a 15% increase to about a 35% increase, about a 15% increase to about a 30% increase, about a 15% increase to about a 25% increase, about a 15% increase to about a 20% increase, about a 20% increase to about a 99% increase, about a 20% increase to about a 95% increase, about a 20% increase to about a 90% increase, about a 20% increase to about a 85% increase, about a 20% increase to about a 80% increase, about a 20% increase to about a 75% increase, about a 20% increase to about a 70% increase, about a 20% increase to about a 65% increase, about a 20% increase to about a 60% increase, about a 20% increase to about a 55% increase, about a 20% increase to about a 50% increase, about a 20% increase to about a 45% increase, about a 20% increase to about a 40% increase, about a 20% increase to about a 35% increase, about a 20% increase to about a 30% increase, about a 20% increase to about a 25% increase, about a 25% increase to about a 99% increase, about a 25% increase to about a 95% increase, about a 25% increase to about a 90% increase, about a 25% increase to about a 85% increase, about a 25% increase to about a 80% increase, about a 25% increase to about a 75% increase, about a 25% increase to about a 70% increase, about a 25% increase to about a 65%

increase, about a 25% increase to about a 60% increase, about a 25% increase to about a 55% increase, about a 25% increase to about a 50% increase, about a 25% increase to about a 45% increase, about a 25% increase to about a 40% increase, about a 25% increase to about a 35% increase, about a 25% increase to about a 30% increase, about a 30% increase to about a 99% increase, about a 30% increase to about a 95% increase, about a 30% increase to about a 90% increase, about a 30% increase to about a 85% increase, about a 30% increase to about a 80% increase, about a 30% increase to about a 75% increase, about a 30% increase to about a 70% increase, about a 30% increase to about a 65% increase, about a 30% increase to about a 60% increase, about a 30% increase to about a 55% increase, about a 30% increase to about a 50% increase, about a 30% increase to about a 45% increase, about a 30% increase to about a 40% increase, about a 30% increase to about a 35% increase, about a 35% increase to about a 99% increase, about a 35% increase to about a 95% increase, about a 35% increase to about a 90% increase, about a 35% increase to about a 85% increase, about a 35% increase to about a 80% increase, about a 35% increase to about a 75% increase, about a 35% increase to about a 70% increase, about a 35% increase to about a 65% increase, about a 35% increase to about a 60% increase, about a 35% increase to about a 55% increase, about a 35% increase to about a 50% increase, about a 35% increase to about a 45% increase, about a 35% increase to about a 40% increase, about a 40% increase to about a 99% increase, about a 40% increase to about a 95% increase, about a 40% increase to about a 90% increase, about a 40% increase to about a 85% increase, about a 40% increase to about a 80% increase, about a 40% increase to about a 75% increase, about a 40% increase to about a 70% increase, about a 40% increase to about a 65% increase, about a 40% increase to about a 60% increase, about a 40% increase to about a 55% increase, about a 40% increase to about a 50% increase, about a 40% increase to about a 45% increase, about a 45% increase to about a 99% increase, about a 45% increase to about a 95% increase, about a 45% increase to about a 90% increase, about a 45% increase to about a 85% increase, about a 45% increase to about a 80% increase, about a 45% increase to about a 75% increase, about a 45% increase to about a 70% increase, about a 45% increase to about a 65% increase, about a 45% increase to about a 60% increase, about a 45% increase to about a 55% increase, about a 45% increase to about a 50% increase, about a 50% increase to about a 99% increase, about a 50% increase to about a 95% increase, about a 50% increase to about a 90% increase, about a 50% increase to about a 85% increase, about a 50% increase to about a 80%

increase, about a 50% increase to about a 75% increase, about a 50% increase to about a 70% increase, about a 50% increase to about a 65% increase, about a 50% increase to about a 60% increase, about a 50% increase to about a 55% increase, about a 55% increase to about a 99% increase, about a 55% increase to about a 95% increase, about a 55% increase to about a 90% increase, about a 55% increase to about a 85% increase, about a 55% increase to about a 80% increase, about a 55% increase to about a 75% increase, about a 55% increase to about a 70% increase, about a 55% increase to about a 65% increase, about a 55% increase to about a 60% increase, about a 60% increase to about a 99% increase, about a 60% increase to about a 95% increase, about a 60% increase to about a 90% increase, about a 60% increase to about a 85% increase, about a 60% increase to about a 80% increase, about a 60% increase to about a 75% increase, about a 60% increase to about a 70% increase, about a 60% increase to about a 65% increase, about a 65% increase to about a 99% increase, about a 65% increase to about a 95% increase, about a 65% increase to about a 90% increase, about a 65% increase to about a 85% increase, about a 65% increase to about a 80% increase, about a 65% increase to about a 75% increase, about a 65% increase to about a 70% increase, about a 70% increase to about a 99% increase, about a 70% increase to about a 95% increase, about a 70% increase to about a 90% increase, about a 70% increase to about a 85% increase, about a 70% increase to about a 80% increase, about a 70% increase to about a 75% increase, about a 75% increase to about a 99% increase, about a 75% increase to about a 95% increase, about a 75% increase to about a 90% increase, about a 75% increase to about a 85% increase, about a 75% increase to about a 80% increase, about a 80% increase to about a 99% increase, about a 80% increase to about a 95% increase, about a 80% increase to about a 90% increase, about a 80% increase to about a 85% increase, about a 85% increase to about a 99% increase, about a 85% increase to about a 95% increase, about a 85% increase to about a 90% increase, about a 90% increase to about a 99% increase, about a 90% increase to about a 95% increase, or about a 95% increase to about a 99% increase) as compared to the half-life of a control antibody (e.g., the same antibody but not including the amino acid substitutions or insertions in the CH1-CH2-CH3 of the heavy chain or any the amino acid substitutions in the C_L domain).

In some examples of any of the ABPCs or antibodies described herein, the half-life of the ABPC *in vivo* is decreased (e.g., a detectable decrease) (e.g., at least a 1% decrease, at least a 5% decrease, at least a 10% decrease, at least a 15% decrease, at least a 20% decrease, at least a 25%

decrease, at least a 30% decrease, at least a 35% decrease, at least a 40% decrease, at least a 45% decrease, at least a 50% decrease, at least a 55% decrease, at least a 60% decrease, at least a 65% decrease, at least a 70% decrease, at least a 75% decrease, at least a 80% decrease, at least a 85% decrease, at least a 90% decrease, at least a 95% decrease, or at least a 99% decrease, or about a 1% decrease to about a 99% decrease, about a 1% decrease to about a 95% decrease, about a 1% decrease to about a 90% decrease, about a 1% decrease to about a 85% decrease, about a 1% decrease to about a 80% decrease, about a 1% decrease to about a 75% decrease, about a 1% decrease to about a 70% decrease, about a 1% decrease to about a 65% decrease, about a 1% decrease to about a 60% decrease, about a 1% decrease to about a 55% decrease, about a 1% decrease to about a 50% decrease, about a 1% decrease to about a 45% decrease, about a 1% decrease to about a 40% decrease, about a 1% decrease to about a 35% decrease, about a 1% decrease to about a 30% decrease, about a 1% decrease to about a 25% decrease, about a 1% decrease to about a 20% decrease, about a 1% decrease to about a 15% decrease, about a 1% decrease to about a 10% decrease, about a 1% decrease to about a 5% decrease, about a 5% decrease to about a 99% decrease, about a 5% decrease to about a 95% decrease, about a 5% decrease to about a 90% decrease, about a 5% decrease to about a 85% decrease, about a 5% decrease to about a 80% decrease, about a 5% decrease to about a 75% decrease, about a 5% decrease to about a 70% decrease, about a 5% decrease to about a 65% decrease, about a 5% decrease to about a 60% decrease, about a 5% decrease to about a 55% decrease, about a 5% decrease to about a 50% decrease, about a 5% decrease to about a 45% decrease, about a 5% decrease to about a 40% decrease, about a 5% decrease to about a 35% decrease, about a 5% decrease to about a 30% decrease, about a 5% decrease to about a 25% decrease, about a 5% decrease to about a 20% decrease, about a 5% decrease to about a 15% decrease, about a 5% decrease to about a 10% decrease, about a 10% decrease to about a 99% decrease, about a 10% decrease to about a 95% decrease, about a 10% decrease to about a 90% decrease, about a 10% decrease to about a 85% decrease, about a 10% decrease to about a 80% decrease, about a 10% decrease to about a 75% decrease, about a 10% decrease to about a 70% decrease, about a 10% decrease to about a 65% decrease, about a 10% decrease to about a 60% decrease, about a 10% decrease to about a 55% decrease, about a 10% decrease to about a 50% decrease, about a 10% decrease to about a 45% decrease, about a 10% decrease to about a 40% decrease, about a 10% decrease to about a 35% decrease, about a 10% decrease to about a 30% decrease, about a 10%

decrease to about a 25% decrease, about a 10% decrease to about a 20% decrease, about a 10% decrease to about a 15% decrease, about a 15% decrease to about a 99% decrease, about a 15% decrease to about a 95% decrease, about a 15% decrease to about a 90% decrease, about a 15% decrease to about a 85% decrease, about a 15% decrease to about a 80% decrease, about a 15% decrease to about a 75% decrease, about a 15% decrease to about a 70% decrease, about a 15% decrease to about a 65% decrease, about a 15% decrease to about a 60% decrease, about a 15% decrease to about a 55% decrease, about a 15% decrease to about a 50% decrease, about a 15% decrease to about a 45% decrease, about a 15% decrease to about a 40% decrease, about a 15% decrease to about a 35% decrease, about a 15% decrease to about a 30% decrease, about a 15% decrease to about a 25% decrease, about a 15% decrease to about a 20% decrease, about a 20% decrease to about a 99% decrease, about a 20% decrease to about a 95% decrease, about a 20% decrease to about a 90% decrease, about a 20% decrease to about a 85% decrease, about a 20% decrease to about a 80% decrease, about a 20% decrease to about a 75% decrease, about a 20% decrease to about a 70% decrease, about a 20% decrease to about a 65% decrease, about a 20% decrease to about a 60% decrease, about a 20% decrease to about a 55% decrease, about a 20% decrease to about a 50% decrease, about a 20% decrease to about a 45% decrease, about a 20% decrease to about a 40% decrease, about a 20% decrease to about a 35% decrease, about a 20% decrease to about a 30% decrease, about a 20% decrease to about a 25% decrease, about a 25% decrease to about a 99% decrease, about a 25% decrease to about a 95% decrease, about a 25% decrease to about a 90% decrease, about a 25% decrease to about a 85% decrease, about a 25% decrease to about a 80% decrease, about a 25% decrease to about a 75% decrease, about a 25% decrease to about a 70% decrease, about a 25% decrease to about a 65% decrease, about a 25% decrease to about a 60% decrease, about a 25% decrease to about a 55% decrease, about a 25% decrease to about a 50% decrease, about a 25% decrease to about a 45% decrease, about a 25% decrease to about a 40% decrease, about a 25% decrease to about a 35% decrease, about a 25% decrease to about a 30% decrease, about a 30% decrease to about a 99% decrease, about a 30% decrease to about a 95% decrease, about a 30% decrease to about a 90% decrease, about a 30% decrease to about a 85% decrease, about a 30% decrease to about a 80% decrease, about a 30% decrease to about a 75% decrease, about a 30% decrease to about a 70% decrease, about a 30% decrease to about a 65% decrease, about a 30% decrease to about a 60% decrease, about a 30% decrease to about a 55% decrease, about a 30% decrease to about a 50% decrease, about a 30%

DEMANDE OU BREVET VOLUMINEUX

LA PRÉSENTE PARTIE DE CETTE DEMANDE OU CE BREVET COMPREND PLUS D'UN TOME.

CECI EST LE TOME 1 DE 2
CONTENANT LES PAGES 1 À 247

NOTE : Pour les tomes additionels, veuillez contacter le Bureau canadien des brevets

JUMBO APPLICATIONS/PATENTS

THIS SECTION OF THE APPLICATION/PATENT CONTAINS MORE THAN ONE VOLUME

THIS IS VOLUME 1 OF 2
CONTAINING PAGES 1 TO 247

NOTE: For additional volumes, please contact the Canadian Patent Office

NOM DU FICHIER / FILE NAME :

NOTE POUR LE TOME / VOLUME NOTE:

WHAT IS CLAIMED IS:

1. An antibody, wherein the antibody comprises:

(a) a heavy chain variable domain and a light chain variable domain selected from the group of:

(i) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 1 and wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 1 selected from the group consisting of: 33, 34, 50, 52, 57, 59, 100, 102, 103, 107, 108, and 109; and/or
a light chain variable domain that is at least 90% identical to SEQ ID NO: 2, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 2 selected from the group consisting of: 32, 34, 50, 51, 89, 90, 92, 93, 94, and 96;

(ii) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 84, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 84 selected from the group consisting of: 27, 29, 32, 50, 54, 58, 99, 100, 102, 104, and 105; and/or
a light chain variable domain that is at least 90% identical to SEQ ID NO: 85, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 85 selected from the group consisting of: 29, 31, 32, 34, 36, 37, 38, 40, 56, 60, 61, 95, 96, 97, and 100;

(iii) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 178, wherein the heavy chain variable domain includes a histidine at one or more positions in SEQ ID NO: 178 selected from the group consisting of: 33, 52, 56, 57, or 106; and/or
a light chain variable domain that is at least 90% identical to SEQ ID NO: 179, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 179 selected from the group consisting of 25, 26, 28, 29, 31, 36, 37, 57, 59, 94, 95, 96, and 100; and

(iv) a heavy chain variable domain that is at least 90% identical to SEQ ID NO: 272, wherein the heavy chain variable domain includes a histidine at one or

more positions in SEQ ID NO: 272 selected from the group consisting of: 24, 27, 29, 62, 63, 98, and 108; and/or

a light chain variable domain that is at least 90% identical to SEQ ID NO: 273, wherein the light chain variable domain includes a histidine at one or more positions in SEQ ID NO: 273 selected from the group consisting of 27, 28, 29, 31, 32, 89, 92, and 93;

(b) a heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprising one or more of the following:

(i) a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139;

(ii) a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317; and

(iii) an alanine to a cysteine substitution at amino acid position 1;

and/or

a light chain C_L sequence of SEQ ID NO: 353 comprising a valine to cysteine substitution at amino acid position 98.

2. The antibody of claim 1, wherein the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprises:

a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317.

3. The antibody of claim 2, wherein the antibody comprises heavy chain and light chain sequences selected from the group of:

(i) SEQ ID NO: 354 and SEQ ID NO: 2, respectively;

(ii) SEQ ID NO: 360 and SEQ ID NO: 85, respectively;

(iii) SEQ ID NO: 366 and SEQ ID NO: 179, respectively; and

(iv) SEQ ID NO: 372 and SEQ ID NO: 273, respectively.

4. The antibody of claim 1, wherein the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprises:

a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139.

5. The antibody of claim 4, wherein the antibody comprises heavy chain and light chain sequences selected from the group of:

(i) SEQ ID NO: 355 and SEQ ID NO: 2, respectively;

(ii) SEQ ID NO: 361 and SEQ ID NO: 85, respectively;

(iii) SEQ ID NO: 367 and SEQ ID NO: 179, respectively; and

(iv) SEQ ID NO: 373 and SEQ ID NO: 273, respectively.

6. The antibody of claim 1, wherein the antibody wherein:

the light chain C_L sequence of SEQ ID NO: 353 comprises a valine to cysteine substitution at amino acid position 98.

7. The antibody of claim 6, wherein the antibody comprises heavy chain and light chain sequences selected from the group of:

(i) SEQ ID NO: 1 and SEQ ID NO: 359, respectively;

(ii) SEQ ID NO: 84 and SEQ ID NO: 365, respectively;

(iii) SEQ ID NO: 178 and SEQ ID NO: 371, respectively; and

(iv) SEQ ID NO: 272 and SEQ ID NO: 377, respectively.

8. The antibody of claim 1, wherein:

the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprises:

a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317; and

the light chain C_L sequence of SEQ ID NO: 353 comprises a valine to cysteine substitution at amino acid position 98.

9. The antibody of claim 8, wherein the antibody comprises heavy chain and light chain sequences selected from the group of:

(i) SEQ ID NO: 354 and SEQ ID NO: 359, respectively;

(ii) SEQ ID NO: 360 and SEQ ID NO: 365, respectively;

(iii) SEQ ID NO: 366 and SEQ ID NO: 371, respectively; and

(iv) SEQ ID NO: 372 and SEQ ID NO: 377, respectively;

10. The antibody of claim 1, wherein:

the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprises:

a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139; and

the light chain C_L sequence of SEQ ID NO: 353 comprises a valine to cysteine substitution at amino acid position 98.

11. The antibody of claim 10, wherein the antibody comprises heavy chain and light chain sequences selected from the group of:

(i) SEQ ID NO: 355 and SEQ ID NO: 359, respectively;

(ii) SEQ ID NO: 361 and SEQ ID NO: 365, respectively;

(iii) SEQ ID NO: 367 and SEQ ID NO: 371, respectively; and

(iv) SEQ ID NO: 373 and SEQ ID NO: 377, respectively.

12. The antibody of claim 1, wherein the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprises:

an alanine to a cysteine substitution at amino acid position 1.

13. The antibody of claim 12, wherein the antibody comprises heavy chain and light chain sequences selected from the group of:

(i) SEQ ID NO: 356 and SEQ ID NO: 2, respectively;

(ii) SEQ ID NO: 362 and SEQ ID NO: 85, respectively;

(iii) SEQ ID NO: 368 and SEQ ID NO: 179, respectively; and

(iv) SEQ ID NO: 374 and SEQ ID NO: 273, respectively.

14. The antibody of claim 1, wherein the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprises:

a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317; and

an alanine to a cysteine substitution at amino acid position 1.

15. The antibody of claim 16, wherein the antibody comprises a heavy chain and a light chain sequence selected from the group of:

(i) SEQ ID NO: 357 and SEQ ID NO: 2, respectively;

(ii) SEQ ID NO: 363 and SEQ ID NO: 85, respectively;

(iii) SEQ ID NO: 369 and SEQ ID NO: 179, respectively; and

(iv) SEQ ID NO: 375 and SEQ ID NO: 273, respectively.

16. The antibody of claim 1, wherein the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprises:

a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139; and

an alanine to a cysteine substitution at amino acid position 1.

17. The antibody of claim 18, wherein the antibody comprises a heavy chain and a light chain sequence selected from the group of:

(i) SEQ ID NO: 358 and SEQ ID NO: 2, respectively;

(ii) SEQ ID NO: 364 and SEQ ID NO: 85, respectively;

(iii) SEQ ID NO: 370 and SEQ ID NO: 179, respectively; and

(iv) SEQ ID NO: 376 and SEQ ID NO: 273, respectively.

18. The antibody of any one of claims 1-17, wherein the antibody further comprises a cytotoxic drug conjugated to one or more of the following:

(a) a heavy chain CH1-CH2-CH3 of SEQ ID NO: 351 or SEQ ID NO: 352 comprising one or more of the following:

(i) the cysteine at amino acid position 103;

(ii) the cysteine at amino acid position 109;

(iii) the cysteine at amino acid position 112; and/or

(b) the cysteine at amino acid position 107 of SEQ ID NO: 353.

19. The antibody of any one of claims 6-11 and 18, wherein the antibody further comprises a cytotoxic or cytostatic agent is conjugated to the cysteine at position 98 of SEQ ID NO: 353.

20. The antibody of any one of claims 12-18, wherein the antibody further comprises a cytotoxic or cytostatic agent is conjugated to the cysteine at position 1 of SEQ ID NO: 351 or SEQ ID NO: 352.

21. The antibody of any one of claims 18-20, wherein the cytotoxic or cytostatic agent is a conjugated toxin, a radioisotope, drug, or a small molecule.

22. The antibody of any one of claims 1-21,

wherein:

(a) the dissociation rate of the antibody at a pH of about 4.0 to about 6.5 is faster than the dissociation rate at a pH of about 7.0 to about 8.0; or

(b) the dissociation constant (K_D) of the antibody at a pH of about 4.0 to about 6.5 is greater than the K_D at a pH of about 7.0 to about 8.0.

23. The antibody of any one of claims 18-22, wherein a composition comprising the antibody:

provides for one or more of:

an increase in toxin liberation in a target mammalian cell as compared to a composition comprising the same amount of a control antibody;

an increase in target mammalian cell killing as compared to a composition comprising the same amount of a control antibody; and

an increase in endolysosomal delivery in the target mammalian cell as compared to a composition comprising the same amount of a control antibody.

24. The antibody of any one of claims 1-23, wherein a composition comprising the antibody:

results in a less of a reduction in the level of LRRC15presented on the surface of a target mammalian cell as compared to a composition comprising the same amount of a control antibody; or

does not result in a detectable reduction in the level of LRRC15presented on the surface of the target mammalian cell.

25. The antibody of claim 23 or 24, wherein the antibody is degraded in a target mammalian cell following internalization of the antibody by a target mammalian cell.

26. The antibody of any one of claims 23-25, wherein the target mammalian cell is a cancer cell.

27. The antibody of any one of claims 23-26, wherein the antibody is cytotoxic or cytostatic to the target mammalian cell.

28. The antibody of any one of claims 1-27, wherein the antibody has an avidity that results in increased selectivity for cancer cells over non-cancerous cells.

29. The antibody of any one of claims 1-28, wherein the antibody is:

cross-reactive with a non-human primate LRRC15 and human LRRC15; or

cross-reactive with a non-human primate LRRC15, a human LRRC15, and one or both of rat LRRC15 and a mouse LRRC15.

30. The antibody of any one of claims 1-29, wherein the half-life of the antibody in vivo is increased as compared to the half-life of a control antibody in vivo.

31. A pharmaceutical composition comprising an effective amount of any one of the antibodies of claims 1-30 wherein the first antigen-binding domain comprises one of (a) through (d):

(a) a light chain variable domain of SEQ ID NO: 2, SEQ ID NO: 61, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 71, SEQ ID NO: 72, SEQ ID NO: 74, SEQ ID NO: 75, SEQ ID NO: 76, or SEQ ID NO: 78 and/or

a heavy chain variable domain of SEQ ID NO: 1, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 23, SEQ ID NO: 25, SEQ ID NO: 30, SEQ ID NO: 32, SEQ ID NO: 43, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 50, SEQ ID NO: 51, SEQ ID NO: 52, SEQ ID NO: 80, SEQ ID NO: 81, SEQ ID NO: 82, or SEQ ID NO: 83,

wherein the first antigen-binding domain does not comprise (i) a light chain variable domain of SEQ ID NO: 2 and a heavy chain variable domain of SEQ ID NO: 1; (ii) a light chain variable domain of SEQ ID NO: 2 and heavy chain variable domain that is not one of SEQ ID NOs: 20, 21, 23, 25, 30, 32, 43, 45, 46, 50-52, or 80-83; or (iii) a heavy chain variable domain of SEQ ID NO: 1 and a light chain variable domain that is not one of SEQ ID NOs: 61, 63-65, 71, 72, 74-76, or 78;

(b) a light chain variable domain of SEQ ID NO: 85, SEQ ID NO: 137, SEQ ID NO: 139, SEQ ID NO: 140, SEQ ID NO: 142, SEQ ID NO: 144, SEQ ID NO: 145, SEQ ID NO: 146, SEQ ID NO: 148, SEQ ID NO: 149, SEQ ID NO: 153, SEQ ID NO: 154, SEQ ID NO: 156, SEQ ID NO: 157, SEQ ID NO: 158, SEQ ID NO: 161, SEQ ID NO: 169, SEQ ID NO: 170, SEQ ID NO: 171, SEQ ID NO: 172, SEQ ID NO: 173, SEQ ID NO: 174, SEQ ID NO: 175, SEQ ID NO: 176, or SEQ ID NO: 177, and/or

a heavy chain variable domain of SEQ ID NO: 84, SEQ ID NO: 93, SEQ ID NO: 95, SEQ ID NO: 98, SEQ ID NO: 101, SEQ ID NO: 102, SEQ ID NO: 106, SEQ ID NO: 110, SEQ ID NO: 120, SEQ ID NO: 121, SEQ ID NO: 122, SEQ ID NO: 124, SEQ ID NO: 126, SEQ ID NO: 127, or SEQ ID NO: 166,

wherein the first antigen-binding domain does not comprise (i) a light chain variable domain of SEQ ID NO: 85 and a heavy chain variable domain of SEQ ID NO: 84; (ii) a light

chain variable domain of SEQ ID NO: 85 and heavy chain variable domain that is not one of SEQ ID NOs: 93, 95, 98, 101, 102, 106, 110, 120-122, 124, 126, 127, or 166; or (iii) a heavy chain variable domain of SEQ ID NO: 84 and a light chain variable domain that is not one of SEQ ID NOs: 137, 139, 140, 142, 144-146, 148, 149, 153, 154, 156-158, 161, or 169-177;

(c) a light chain variable domain of SEQ ID NO: 179, SEQ ID NO: 229, SEQ ID NO: 230, SEQ ID NO: 232, SEQ ID NO: 233, SEQ ID NO: 235, SEQ ID NO: 240, SEQ ID NO: 241, SEQ ID NO: 246, SEQ ID NO: 248 SEQ ID NO: 251, SEQ ID NO: 252, SEQ ID NO: 253, SEQ ID NO: 257, SEQ ID NO: 263, SEQ ID NO: 264, SEQ ID NO: 268, SEQ ID NO: 269, SEQ ID NO: 270, or SEQ ID NO: 271, and/or

a heavy chain variable domain of SEQ ID NO: 178, SEQ ID NO: 196, SEQ ID NO: 201, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 225, SEQ ID NO: 258, SEQ ID NO: 259, SEQ ID NO: 260, or SEQ ID NO: 261,

wherein the first antigen-binding domain does not comprise (i) a light chain variable domain of SEQ ID NO: 179 and a heavy chain variable domain of SEQ ID NO: 178; (ii) a light chain variable domain of SEQ ID NO: 179 and heavy chain variable domain that is not one of SEQ ID NOs: 196, 201, 205, 206, 225, or 258-261; or (iii) a heavy chain variable domain of SEQ ID NO: 178 and a light chain variable domain that is not one of SEQ ID NOs: 229, 230, 232, 233, 235, 240, 241, 246, 248, 251-253, 257, 263, 264, or 268-271; and

(d) a light chain variable domain of SEQ ID NO: 273, SEQ ID NO: 327, SEQ ID NO: 328, SEQ ID NO: 329, SEQ ID NO: 331, SEQ ID NO: 332, SEQ ID NO: 342, SEQ ID NO: 345, or SEQ ID NO: 346 and/or

a heavy chain variable domain of SEQ ID NO: 272, SEQ ID NO: 281, SEQ ID NO: 284, SEQ ID NO: 286, SEQ ID NO: 305, SEQ ID NO: 306, SEQ ID NO: 311, or SEQ ID NO: 321,

wherein the first antigen-binding domain does not comprise (i) a light chain variable domain of SEQ ID NO: 273 and a heavy chain variable domain of SEQ ID NO: 272; (ii) a light chain variable domain of SEQ ID NO: 273 and heavy chain variable domain that is not one of SEQ ID NOs: 281, 284, 286, 305, 306, 311, or 321; or (iii) a heavy chain variable domain of SEQ ID NO: 272 and a light chain variable domain that is not one of SEQ ID NOs: 327-329, 331, 332, 342, 345, or 346.

32. A kit comprising at least one dose of the antibody of any one of claims 1-30 or the pharmaceutical composition of claim 31.

33. A method of treating a cancer characterized by having a population of cancer cells that have LRRC15 or an epitope of LRRC15 presented on their surface, the method comprising:

administering a therapeutically effective amount of the antibody of any one of claims 1-30 or the pharmaceutical composition of claim 31 to a subject identified as having a cancer characterized by having the population of cancer cells.

34. A method of reducing the volume of a tumor in a subject, wherein the tumor is characterized by having a population of cancer cells that have LRRC15 or an epitope of LRRC15 presented on their surface, the method comprising:

administering a therapeutically effective amount of the antibody of any one of claims 1-30 or the pharmaceutical composition of claim 31 to a subject identified as having a cancer characterized by having the population of cancer cells.

35. A method of inducing cell death in a cancer cell in a subject, wherein the cancer cell has LRRC15 or an epitope of LRRC15 presented on its surface, wherein the method comprises:

administering a therapeutically effective amount of the antibody of any one of claims 1-30 or the pharmaceutical composition of claim 31 to a subject identified as having a cancer characterized by having a population of the cancer cells.

36. A method of decreasing the risk of developing a metastasis or decreasing the risk of developing an additional metastasis in a subject having a cancer, wherein the cancer is characterized by having a population of cancer cells that have LRRC15 or an epitope of LRRC15 presented on their surface the method comprising:

administering a therapeutically effective amount of the antibody of any one of claims 1-30 or the pharmaceutical composition of claim 31 to a subject identified as having a cancer characterized by having the population of cancer cells.

37. An antibody, wherein the antibody comprises:

(a) heavy chain variable domain and a light chain variable domain selected from the group consisting of:

(i) SEQ ID NO: 1 and SEQ ID NO: 2, respectively;

(ii) SEQ ID NO: 84 and SEQ ID NO: 85, respectively;

(iii) SEQ ID NO: 178 and SEQ ID NO: 179, respectively; and

(iv) SEQ ID NO: 272 and SEQ ID NO: 273, respectively;

(b) a heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprising one or more of the following substitution(s):

(i) a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139;

(ii) a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317; and

(iii) an alanine to cysteine substitution at amino acid position 1;

and/or

a light chain C_L sequence of SEQ ID NO: 353 comprising a valine to cysteine substitution at position 98.

38. The antibody of claim 37, wherein the heavy CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprises:

a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317.

39. The antibody of claim 38, wherein the antibody comprises heavy chain and light chain sequences selected from the group of:

(i) SEQ ID NO: 354 and SEQ ID NO: 2, respectively;

(ii) SEQ ID NO: 360 and SEQ ID NO: 85, respectively;

(iii) SEQ ID NO: 366 and SEQ ID NO: 179, respectively; and

(iv) SEQ ID NO: 372 and SEQ ID NO: 273, respectively.

40. The antibody of claim 37, wherein the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprises:

a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139.

41. The antibody of claim 40, wherein the antibody comprises a heavy chain and a light chain sequence selected from the group of:

(i) SEQ ID NO: 355 and SEQ ID NO: 2, respectively;

(ii) SEQ ID NO: 361 and SEQ ID NO: 85, respectively;

(iii) SEQ ID NO: 367 and SEQ ID NO: 179, respectively; and

(iv) SEQ ID NO: 373 and SEQ ID NO: 273, respectively.

42. The antibody of claim 37, wherein:

the light chain C_L sequence of SEQ ID NO: 353 comprises a valine to cysteine substitution at amino acid position 98.

43. The antibody of claim 42, wherein the antibody comprises heavy chain and light chain sequences selected from the group of:

(i) SEQ ID NO: 1 and SEQ ID NO: 359, respectively;

(ii) SEQ ID NO: 84 and SEQ ID NO: 365, respectively;

(iii) SEQ ID NO: 178 and SEQ ID NO: 371, respectively; and

(iv) SEQ ID NO: 272 and SEQ ID NO: 377, respectively.

44. The antibody of claim 37, wherein:

the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprises:

a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317; and

the light chain C_L sequence of SEQ ID NO: 353 comprises a valine to cysteine substitution at amino acid position 98.

45. The antibody of claim 44, wherein the antibody comprises heavy chain and light chain sequences selected from the group of:

(i) SEQ ID NO: 354 and SEQ ID NO: 359, respectively;

(ii) SEQ ID NO: 360 and SEQ ID NO: 365, respectively;

(iii) SEQ ID NO: 366 and SEQ ID NO: 371, respectively; and

(iv) SEQ ID NO: 372 and SEQ ID NO: 377, respectively.

46. The antibody of claim 37, wherein:

the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprises:

a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139; and

the light chain C_L sequence of SEQ ID NO: 353 comprises a valine to cysteine substitution at amino acid position 98.

47. The antibody of claim 46, wherein the antibody comprises heavy chain and light chain sequences selected from the group of:

(i) SEQ ID NO: 355 and SEQ ID NO: 359, respectively;

(ii) SEQ ID NO: 361 and SEQ ID NO: 365, respectively;

(iii) SEQ ID NO: 367 and SEQ ID NO: 371, respectively; and

(iv) SEQ ID NO: 373 and SEQ ID NO: 377, respectively.

48. The antibody of claim 37, wherein the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprises:

an alanine to a cysteine substitution at amino acid position 1.

49. The antibody of claim 48, wherein the antibody comprises heavy chain and light chain sequences selected from the group of:

(i) SEQ ID NO: 356 and SEQ ID NO: 2, respectively;

(ii) SEQ ID NO: 362 and SEQ ID NO: 85, respectively;

(iii) SEQ ID NO: 368 and SEQ ID NO: 179, respectively; and

(iv) SEQ ID NO: 374 and SEQ ID NO: 273, respectively.

50. The antibody of claim 37, wherein the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprises:

a methionine to leucine substitution at amino acid position 311 and an asparagine to serine substitution at amino acid position 317; and

an alanine to a cysteine substitution at amino acid position 1.

51. The antibody of claim 50, wherein the antibody comprises a heavy chain and a light chain sequence selected from the group of:

(i) SEQ ID NO: 357 and SEQ ID NO: 2, respectively;

(ii) SEQ ID NO: 363 and SEQ ID NO: 85, respectively;

(iii) SEQ ID NO: 369 and SEQ ID NO: 179, respectively; and

(iv) SEQ ID NO: 375 and SEQ ID NO: 273, respectively.

52. The antibody of claim 37, wherein the heavy chain CH1-CH2-CH3 sequence of SEQ ID NO: 351 or SEQ ID NO: 352 comprises:

a methionine to tyrosine substitution at amino acid position 135, a serine to threonine substitution at amino acid position 137, and a threonine to glutamic acid substitution at amino acid position 139; and

an alanine to a cysteine substitution at amino acid position 1.

53. The antibody of claim 52, wherein the antibody comprises heavy chain and light chain sequences selected from the group of:

(i) SEQ ID NO: 358 and SEQ ID NO: 2, respectively;

(ii) SEQ ID NO: 364 and SEQ ID NO: 85, respectively;

(iii) SEQ ID NO: 370 and SEQ ID NO: 179, respectively; and

(iv) SEQ ID NO: 376 and SEQ ID NO: 273, respectively.

54. The antibody of any one of claims 37-53, wherein the antibody further comprises a cytotoxic drug conjugated to one or more of the following:

(a) a heavy chain CH1-CH2-CH3 of SEQ ID NO: 351 or SEQ ID NO: 352 comprising one or more of the following:

(i) the cysteine at amino acid position 103;

(ii) the cysteine at amino acid position 109; and

(iii) the cysteine at amino acid position 112; and/or

(b) the cysteine at amino acid position 107 of SEQ ID NO: 353.

55. The antibody of any one of claims 42-47 and 54, wherein the antibody further comprises a cytotoxic or cytostatic agent is conjugated to the cysteine at position 98 of SEQ ID NO: 353.

56. The antibody of any one of claims 48-55, wherein the antibody further comprises a cytotoxic or cytostatic agent is conjugated to the cysteine at position 1 of SEQ ID NO: 351 or SEQ ID NO: 352.

57. The antibody of any one of claims 54-56, wherein the cytostatic or cytotoxic agent is a conjugated toxin, a radioisotope, drug, or a small molecule.

58. The antibody of any one of claims 54-57, wherein the antibody is cytotoxic or cytostatic to a target mammalian cell.

59. The antibody of claim 58, wherein the antibody is degraded in the target mammalian cell following internalization of the antibody by the target mammalian cell.

60. The antibody of claim 58 or 59, wherein the target mammalian cell is a cancer cell.

61. The antibody of any one of claims 37-60, wherein the antibody has an avidity that results in increased selectivity for cancer cells over non-cancerous cells.

62. The antibody of any one of claims 37-61, wherein the antibody is:

cross-reactive with a non-human primate LRRC15 and human LRRC15; or

cross-reactive with a non-human primate LRRC15, a human LRRC15, and one or both of rat LRRC15 and a mouse LRRC15.

63. The antibody of any one of claims 37-62, wherein the half-life of the antibody in vivo is increased as compared to the half-life of a control antibody in vivo.

64. The antibody of any one of claims 58-60, wherein the target mammalian cell is a cancer cell.

65. A pharmaceutical composition comprising an effective amount of any one of the antibodies of claims 37-64.

66. A kit comprising at least one dose of the antibody of any one of claims 37-64 or the pharmaceutical composition claim 65.

67. A method of treating a cancer characterized by having a population of cancer cells that have LRRC15 or an epitope of LRRC15 presented on their surface, the method comprising:

administering a therapeutically effective amount of the antibody of any one of claims 37-64 or the pharmaceutical composition of claim 65 to a subject identified as having a cancer characterized by having the population of cancer cells.

68. A method of reducing the volume of a tumor in a subject, wherein the tumor is characterized by having a population of cancer cells that have LRRC15 or an epitope of LRRC15 presented on their surface, the method comprising:

administering a therapeutically effective amount of the antibody of any one of claims 37-64 or the pharmaceutical composition of claim 65 to a subject identified as having a cancer characterized by having the population of cancer cells.

69. A method of inducing cell death in a cancer cell in a subject, wherein the cancer cell has LRRC15 or an epitope of LRRC15presented on its surface, wherein the method comprises:

administering a therapeutically effective amount of the antibody of any one of claims 37-64 or the pharmaceutical composition of claim 65 to a subject identified as having a cancer characterized by having a population of the cancer cells.

70. A method of decreasing the risk of developing a metastasis or decreasing the risk of developing an additional metastasis in a subject having a cancer, wherein the cancer is characterized by having a population of cancer cells that have LRRC15 or an epitope of LRRC15 presented on their surface the method comprising:

administering a therapeutically effective amount of the antibody of any one of claims 37-64 or the pharmaceutical composition of claim 65 to a subject identified as having a cancer characterized by having the population of cancer cells.

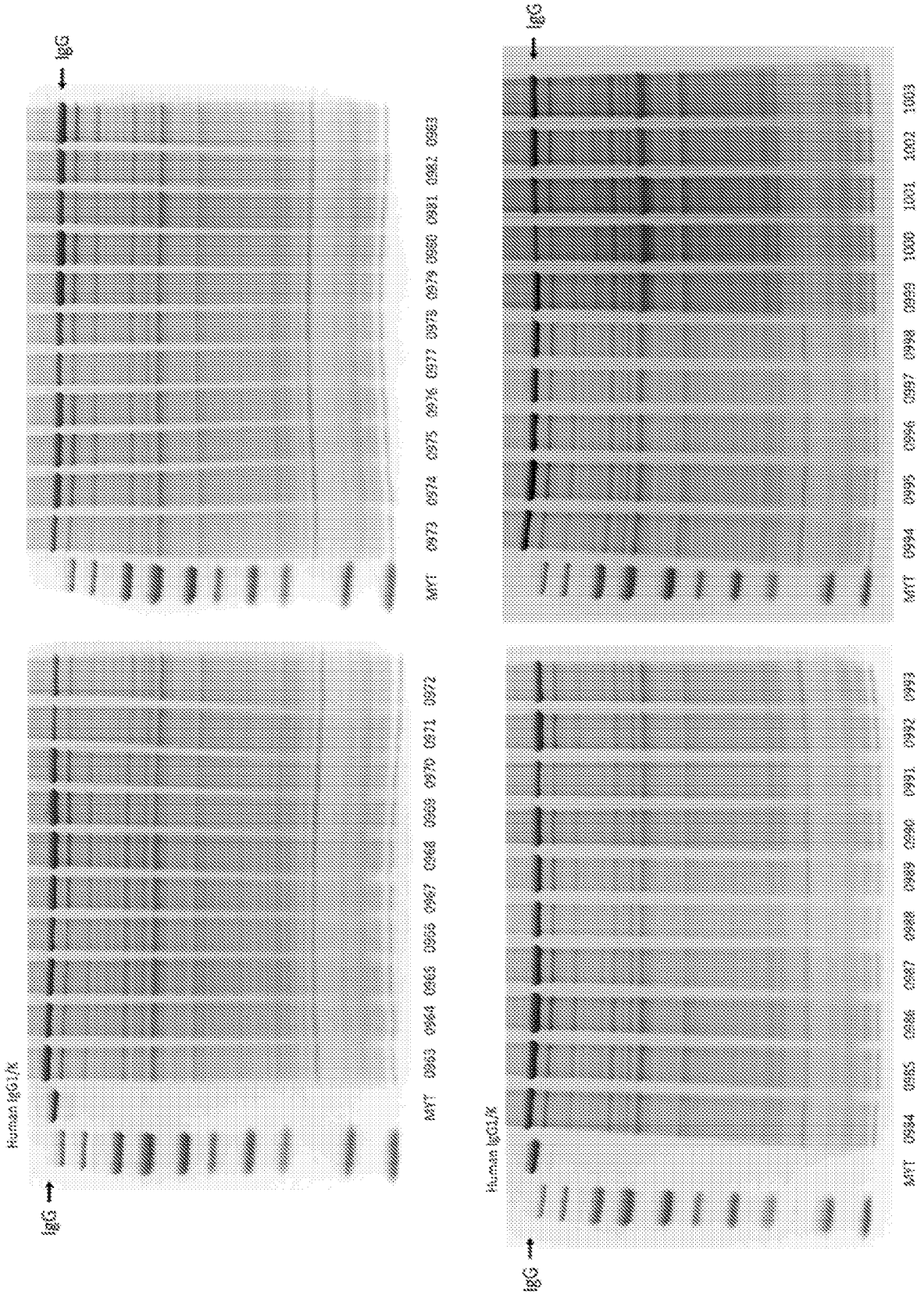

Human IgG1/κ
IgG
MYT 0963 0964 0965 0966 0967 0968 0969 0970 0971 0972
MYT 0973 0974 0975 0976 0977 0978 0979 0980 0981 0982 0983
Human IgG1/κ
IgG
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MYT 0994 0995 0996 0997 0998 0999 1000 1001 1002 1003

FIG. 1

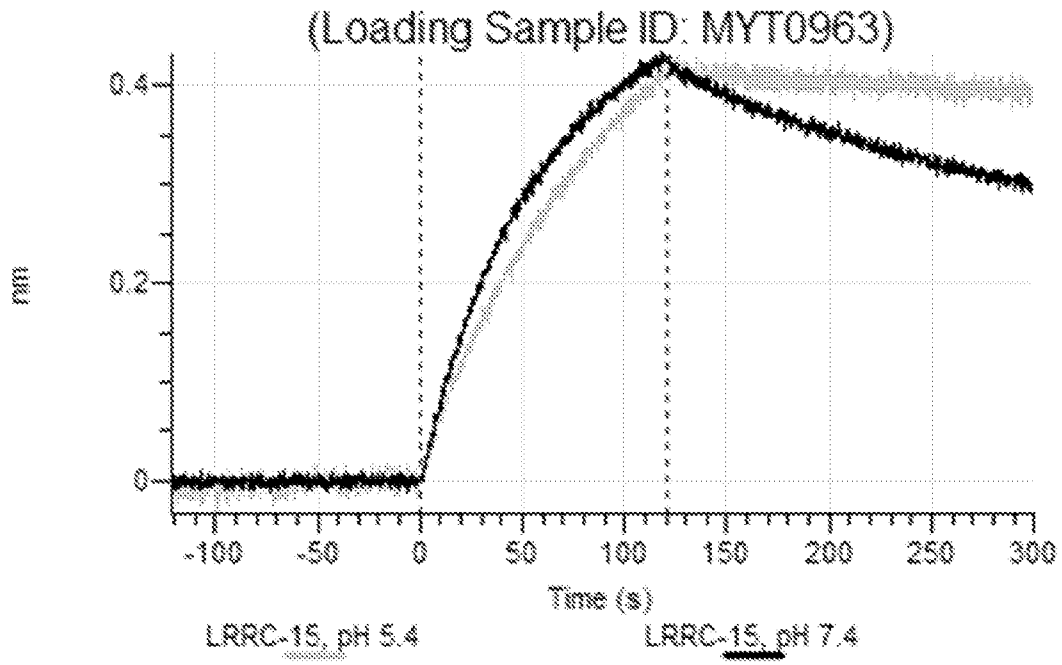

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nm
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0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2A

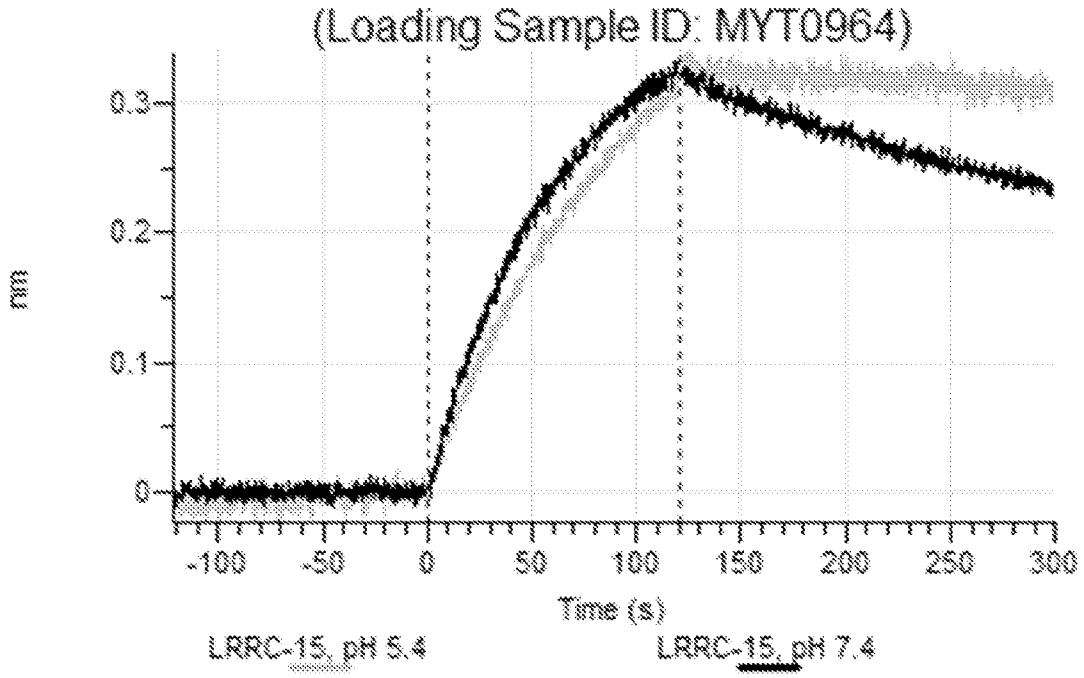

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250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2B

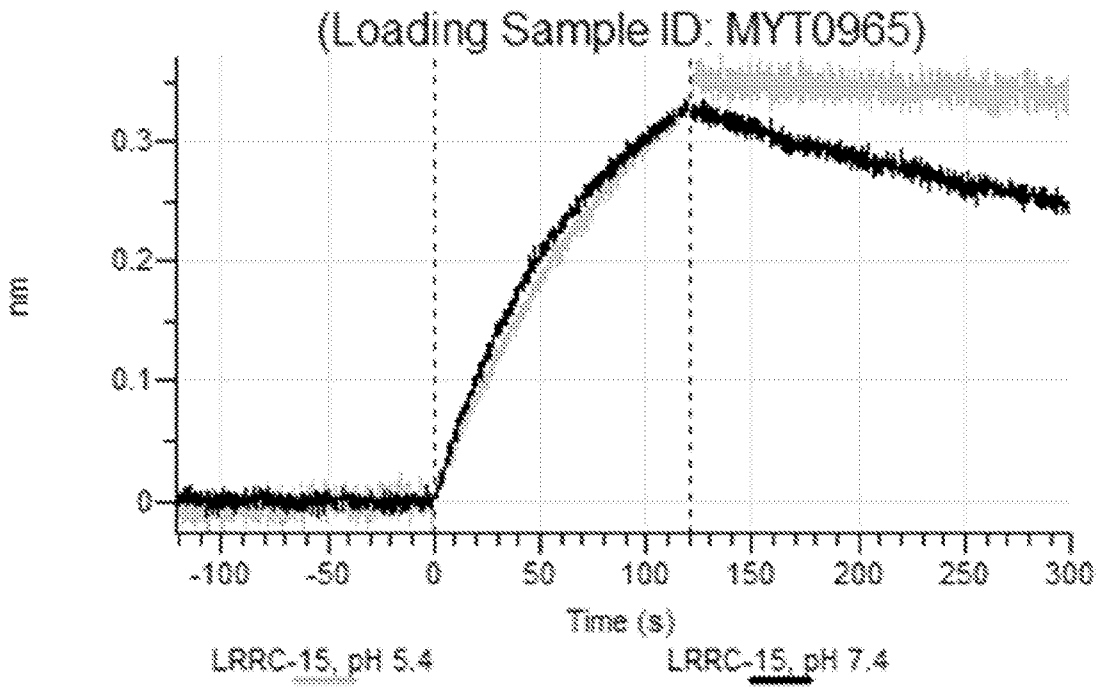

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-50
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100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2C

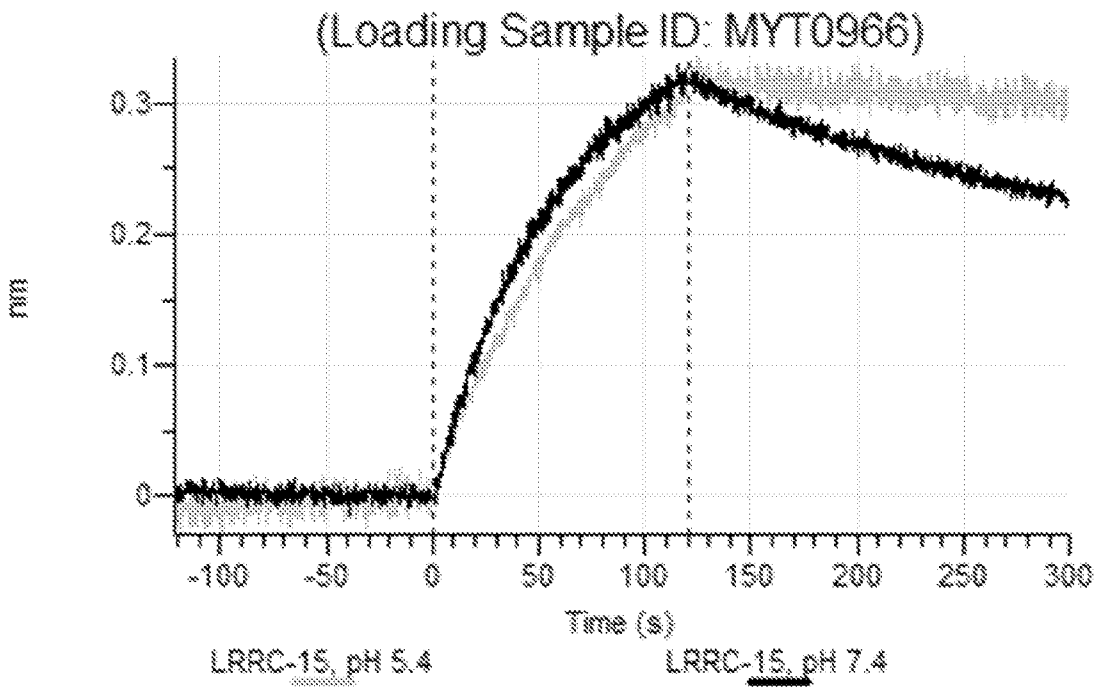

(Loading Sample ID: MYT0966)
nm
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0.1
0
-100
-50
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50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2D

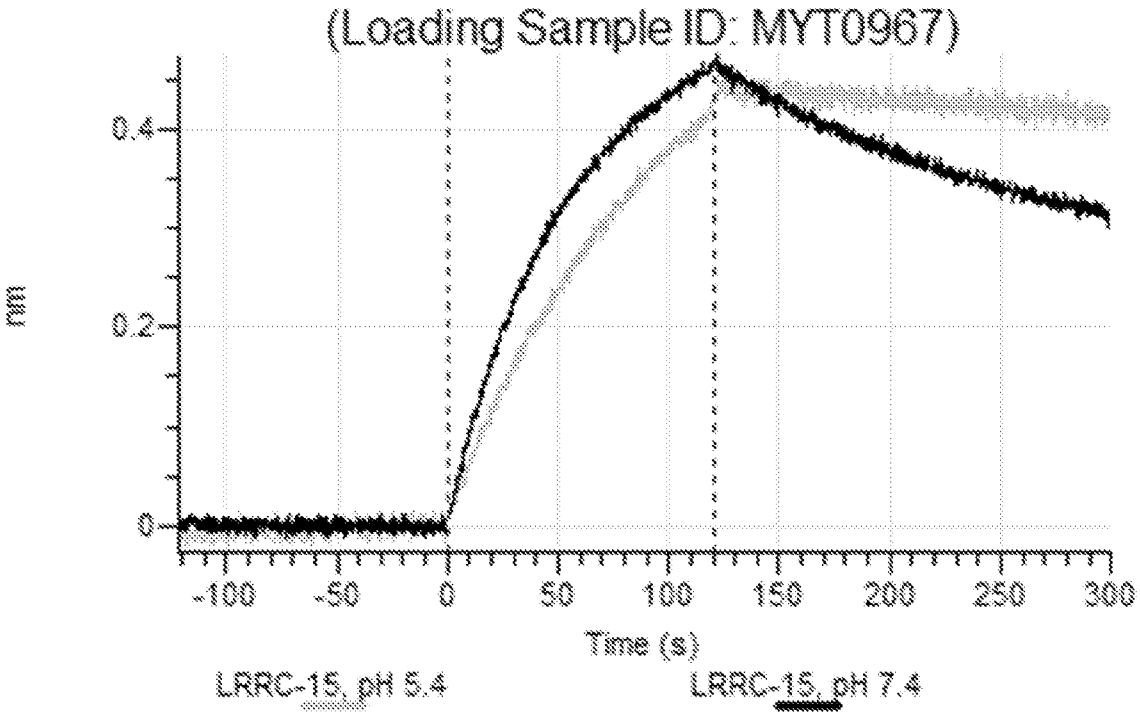

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150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2E

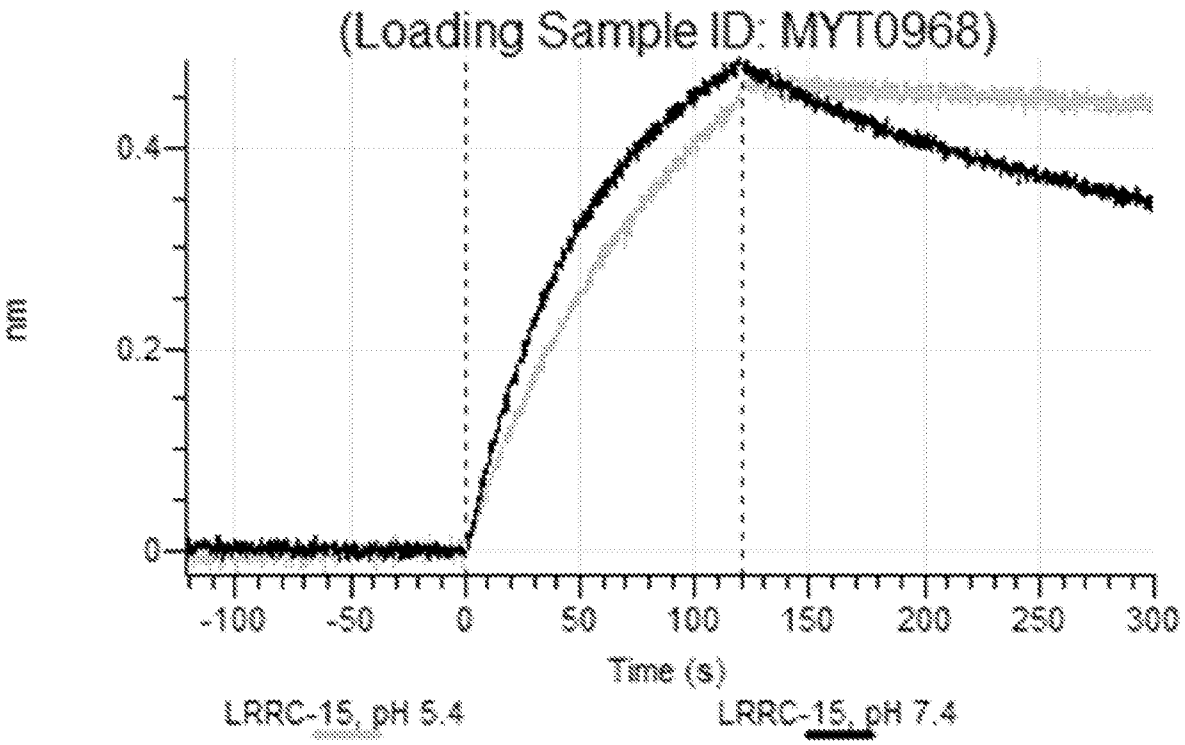

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-100
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0
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100
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200
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300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2F

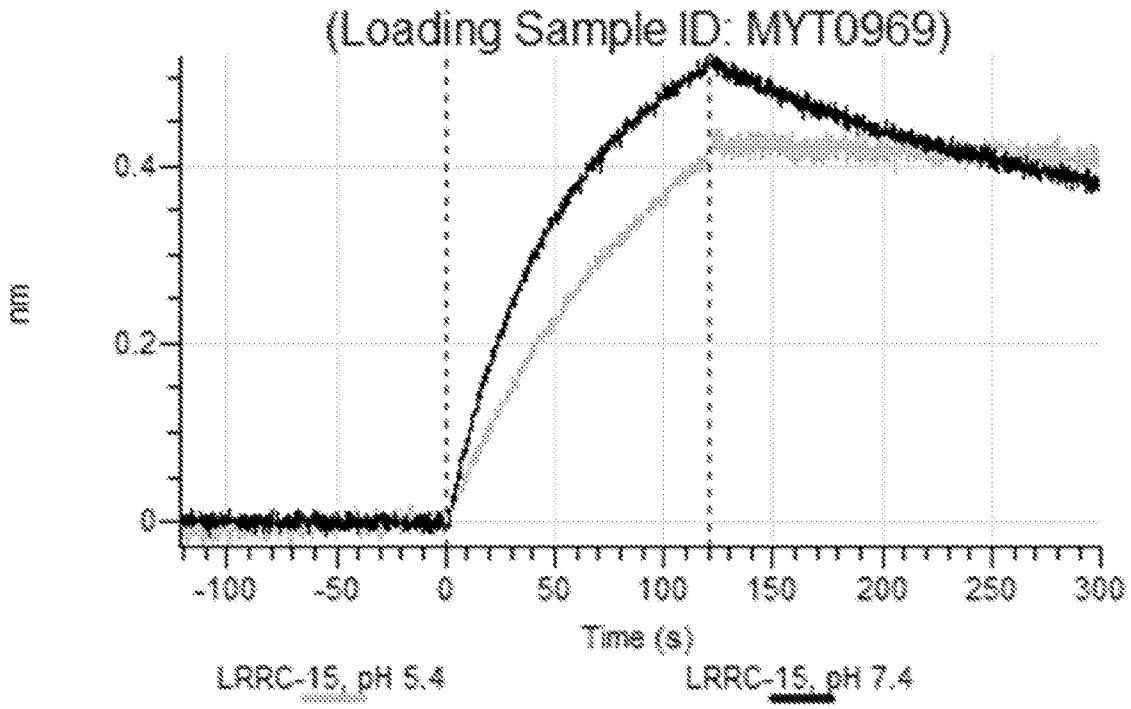

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-100
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200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2G

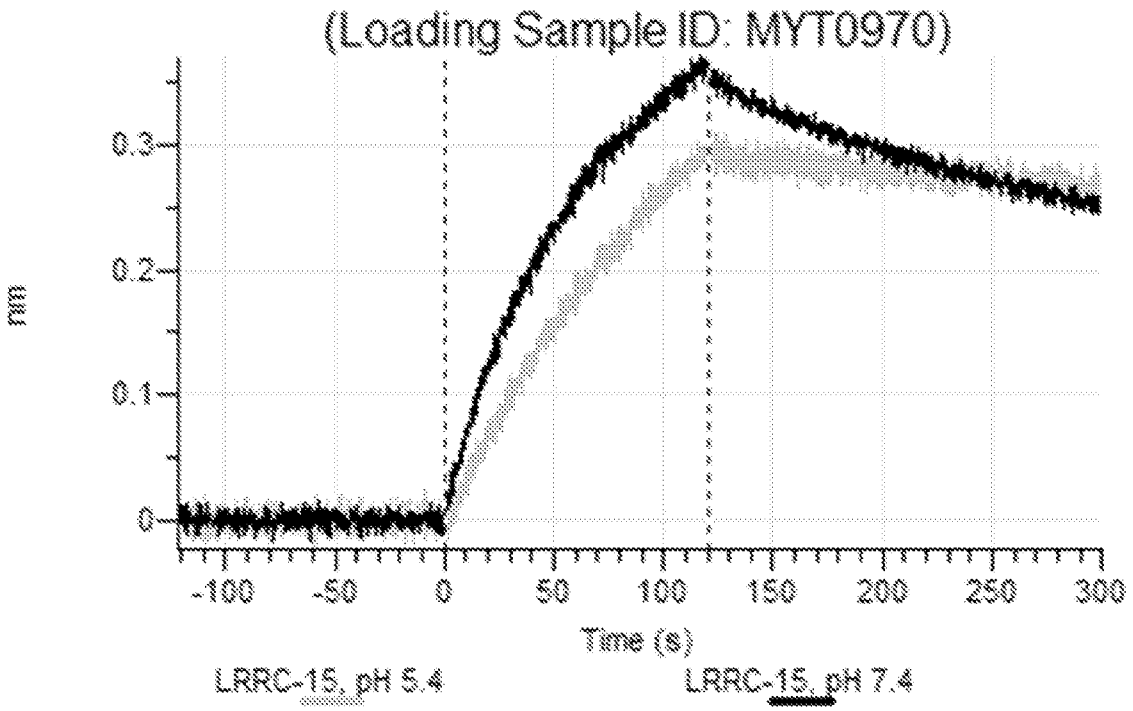

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nm
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0.1
0
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-50
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100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2H

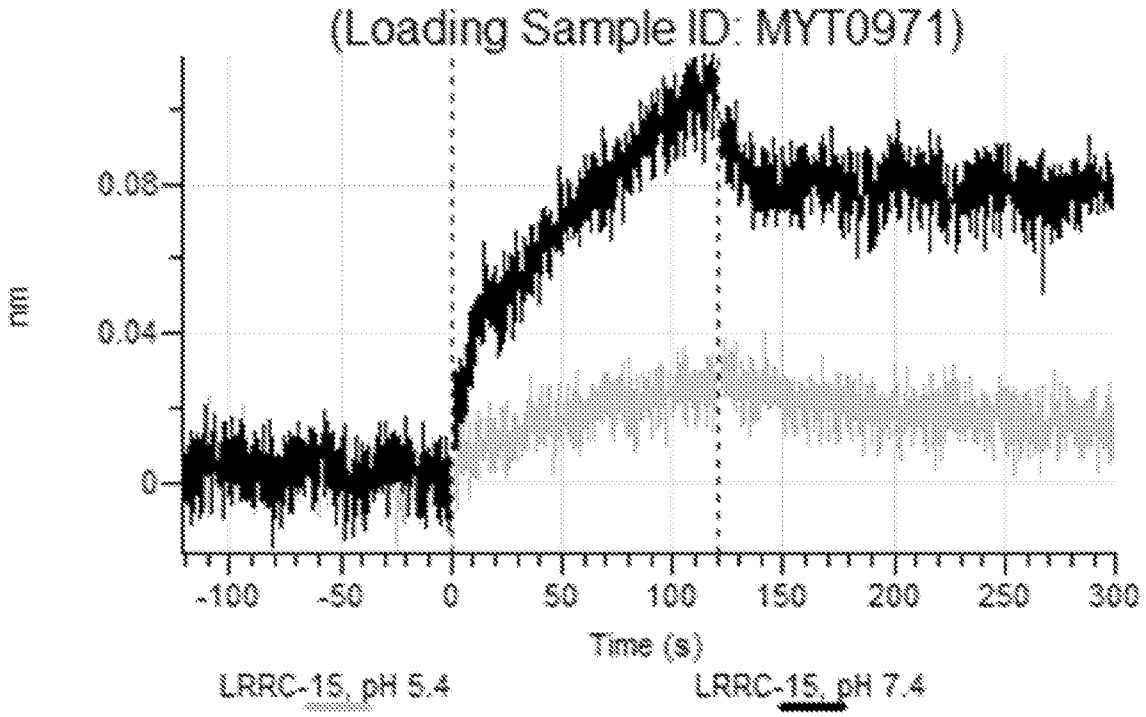

(Loading Sample ID: MYT0971)
nm
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0.04
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2I

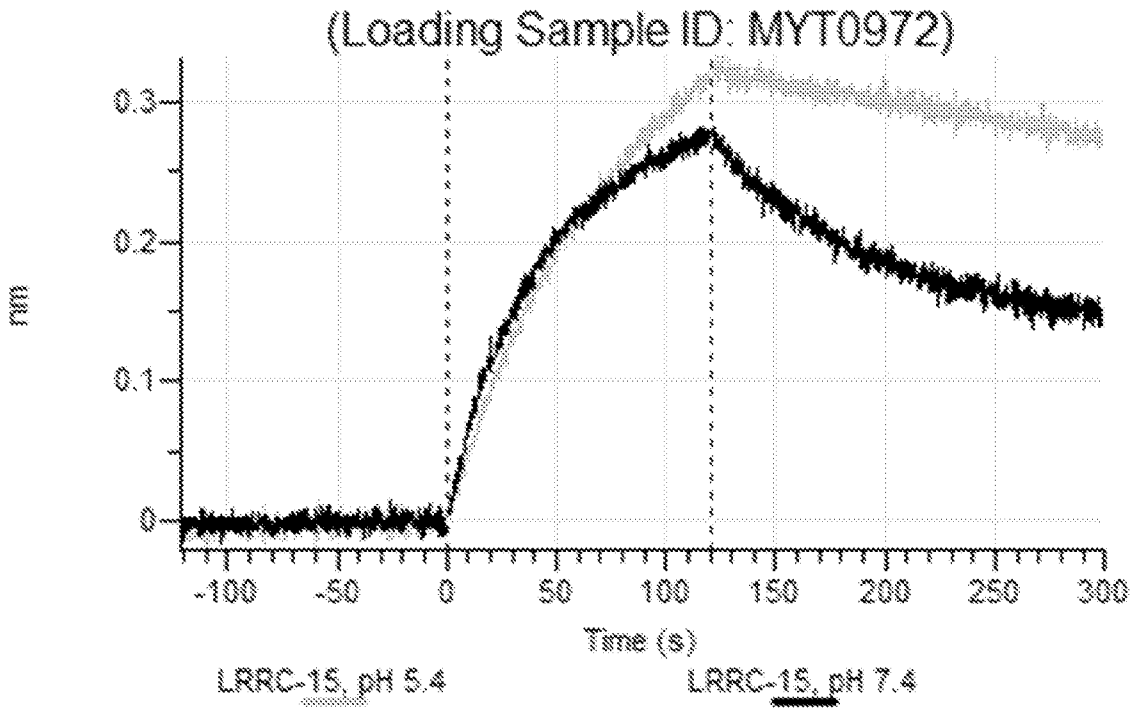

(Loading Sample ID: MYT0972)
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0.1
0
-100
-50
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100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2J

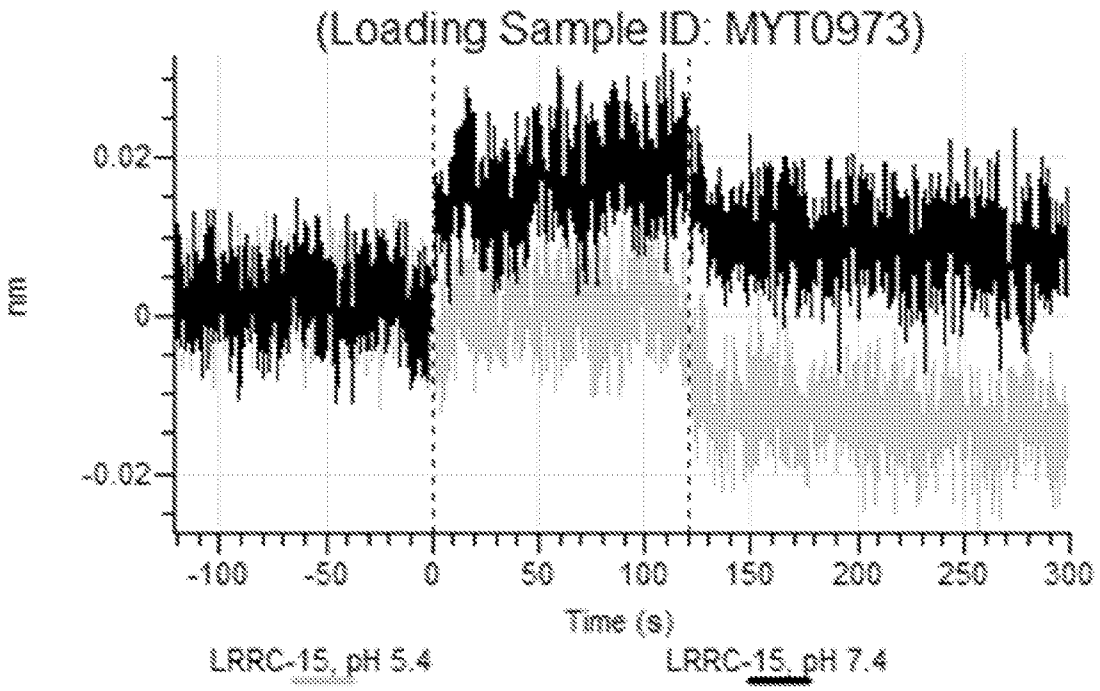

(Loading Sample ID: MYT0973)
nm
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-0.02
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2K

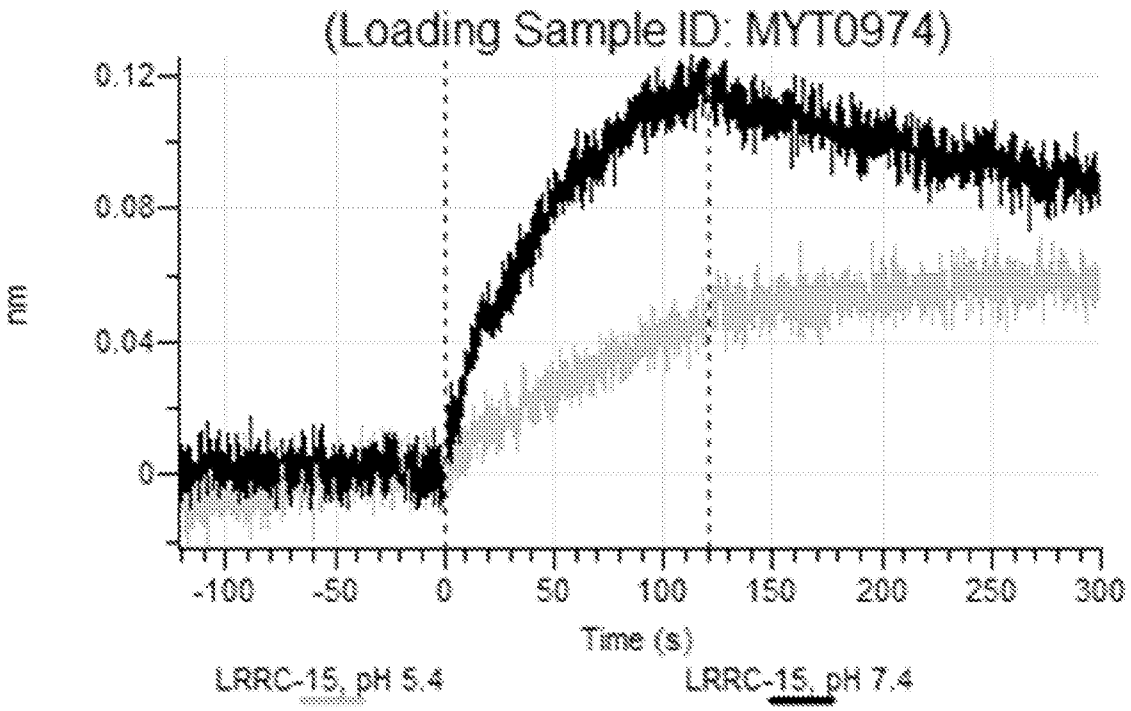

(Loading Sample ID: MYT0974)
0.12
0.08
0.04
0
nm
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2L

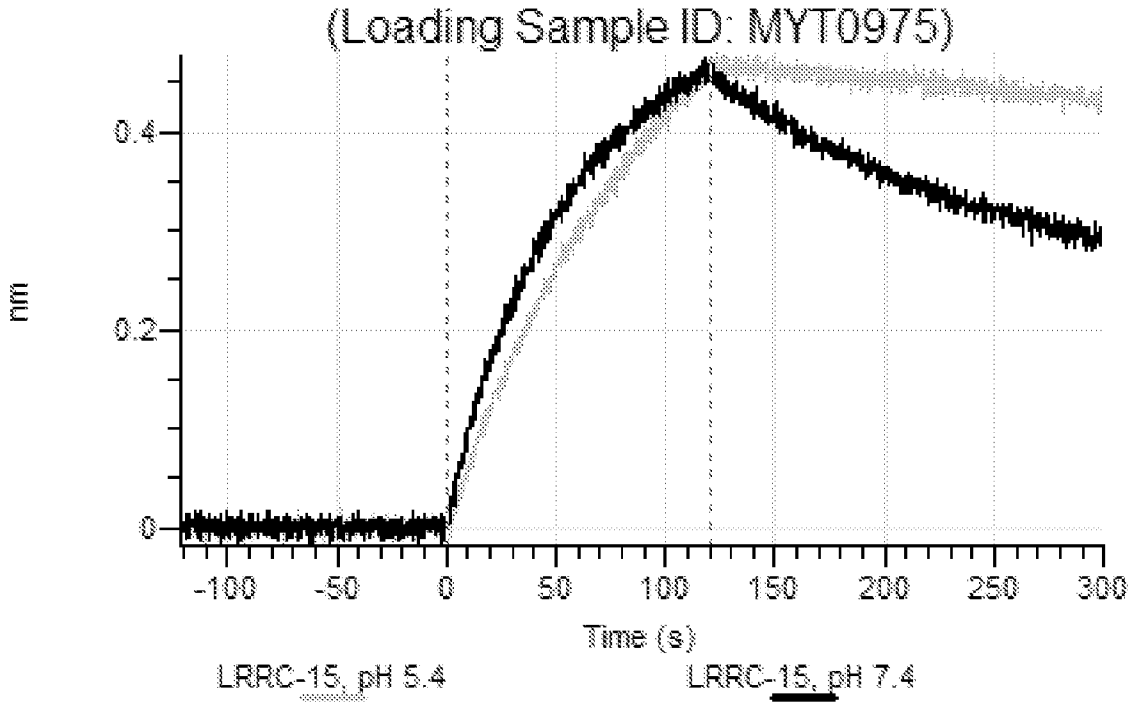

(Loading Sample ID: MYT0975)
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-100
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200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2M

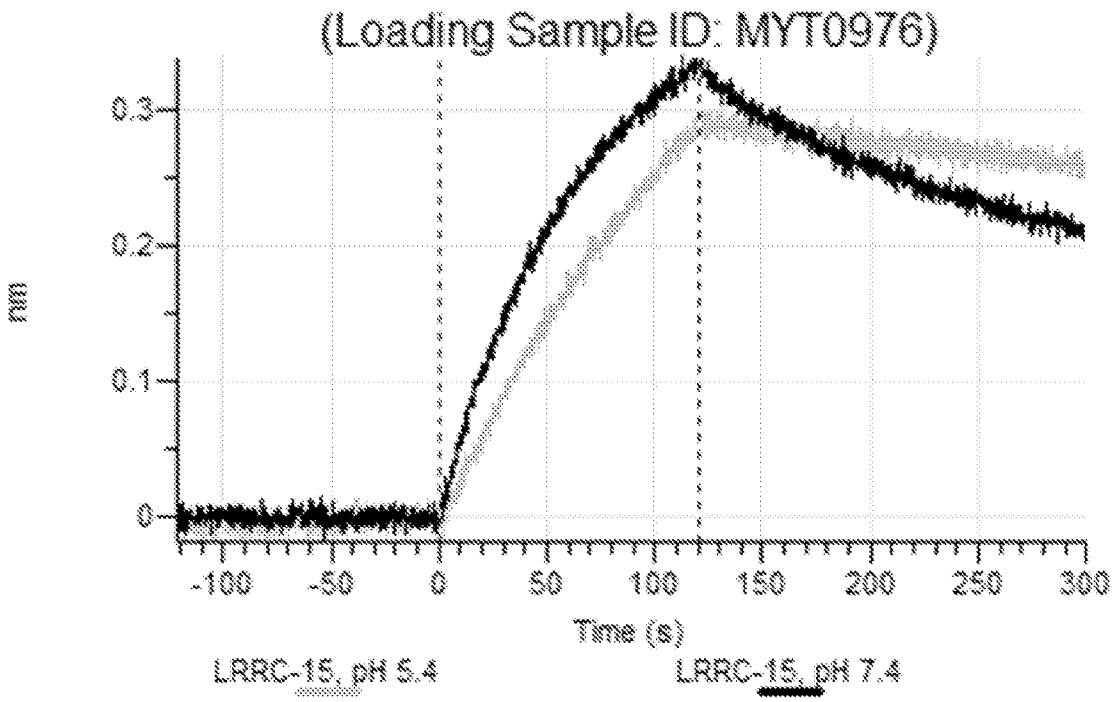

(Loading Sample ID: MYT0976)
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0
nm
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-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2N

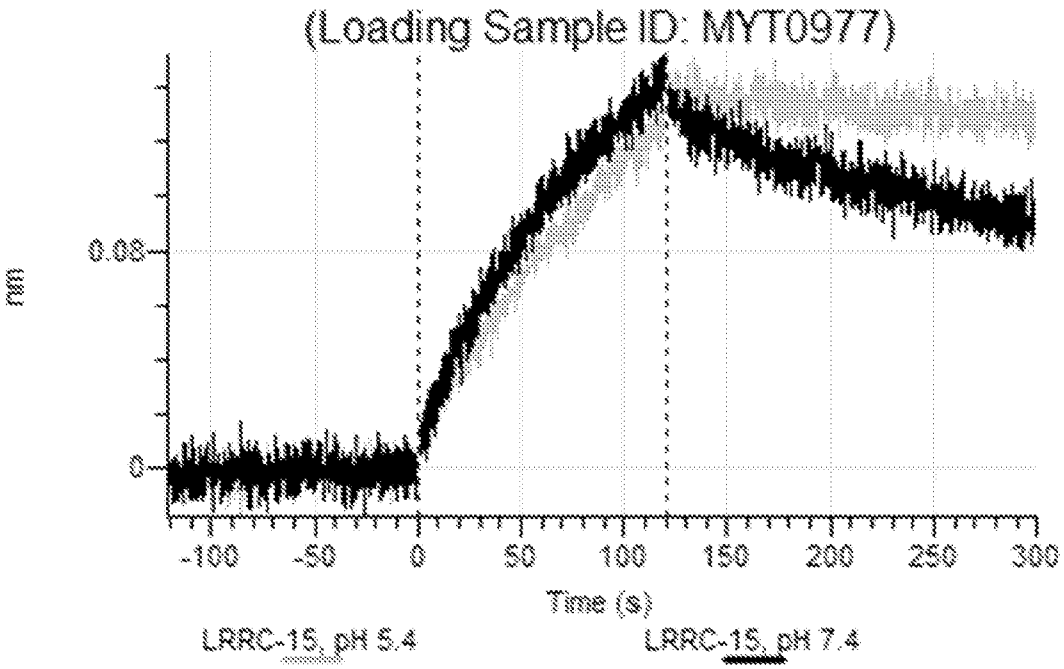

(Loading Sample ID: MYT0977)
nm
0.08
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2O

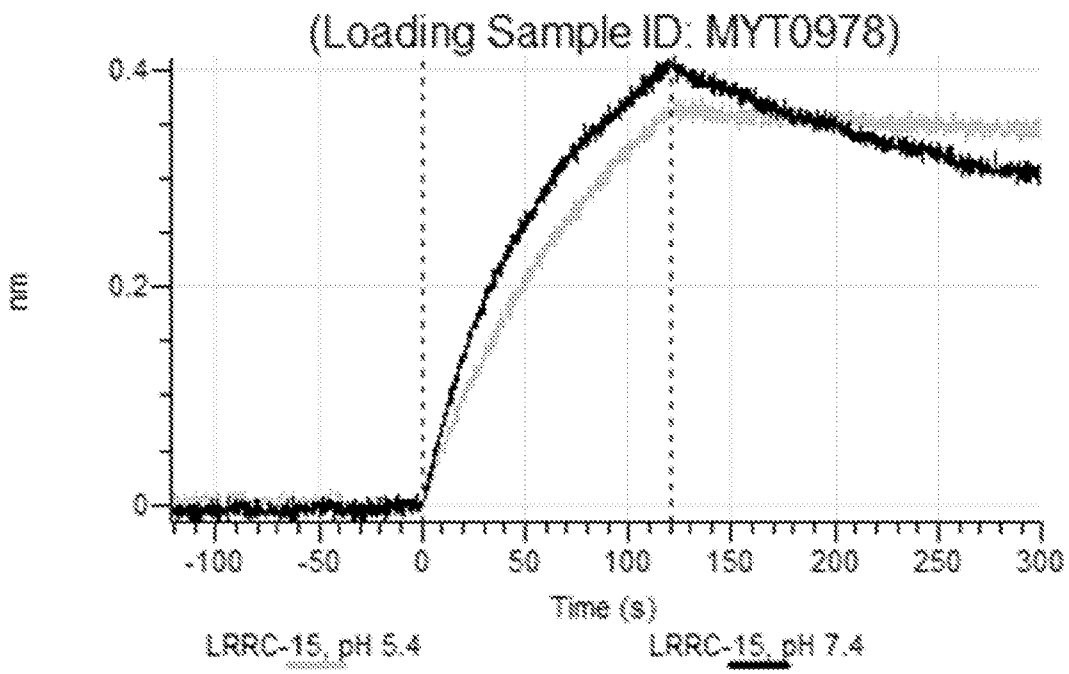

(Loading Sample ID: MYT0978)
nm
0.4
0.2
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2P

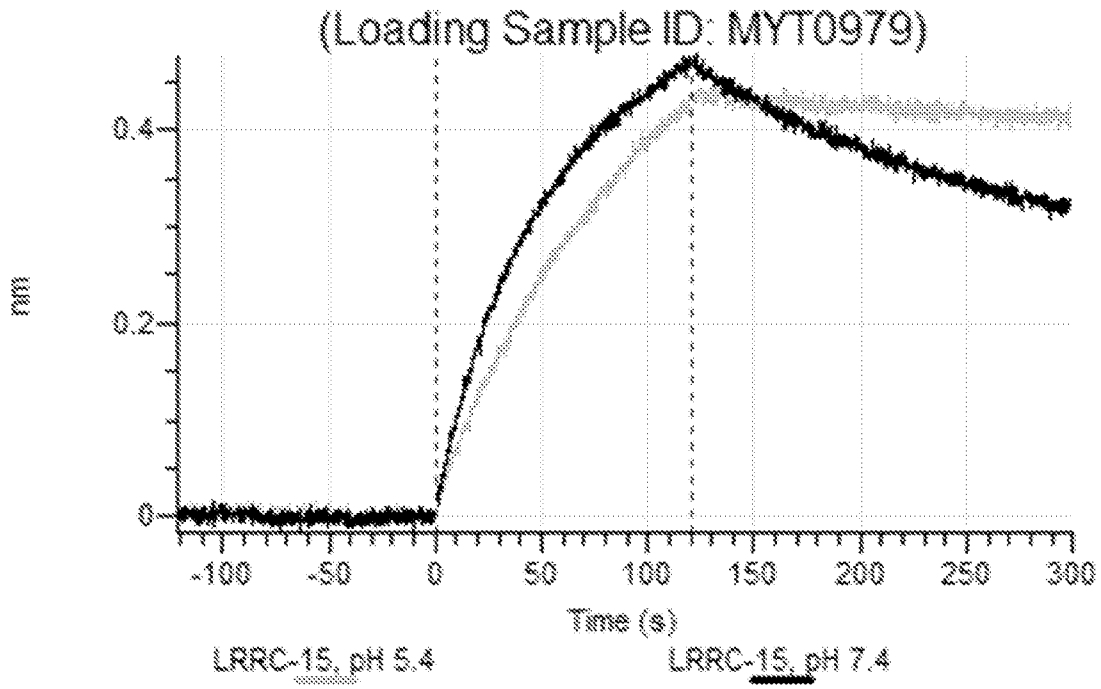

(Loading Sample ID: MYT0979)
nm
0.4
0.2
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2Q

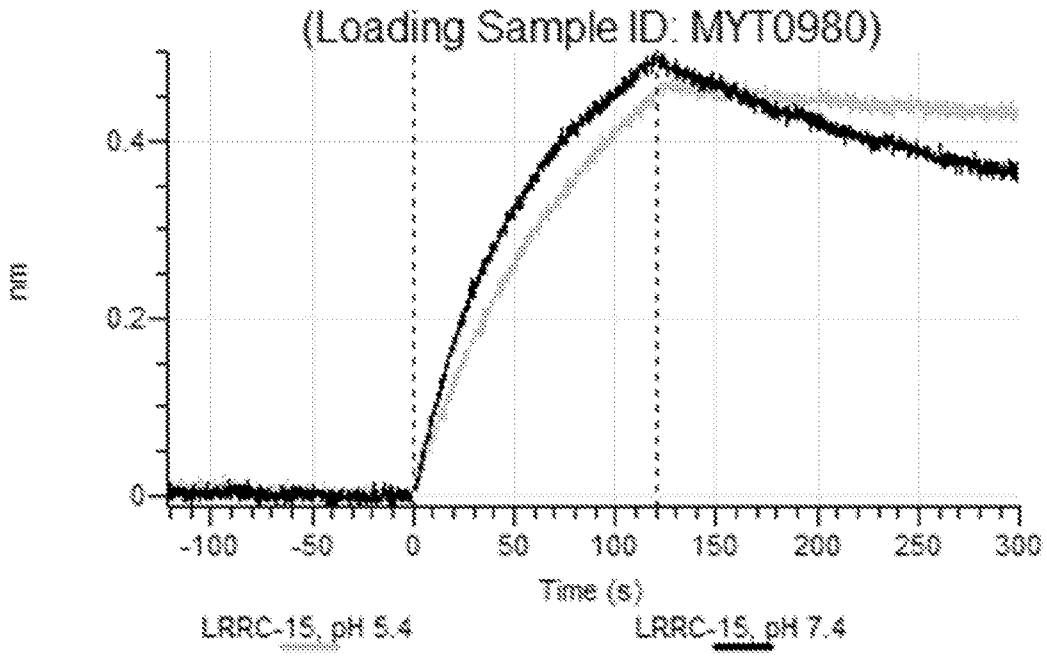

(Loading Sample ID: MYT0980)
nm
0.4
0.2
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2R

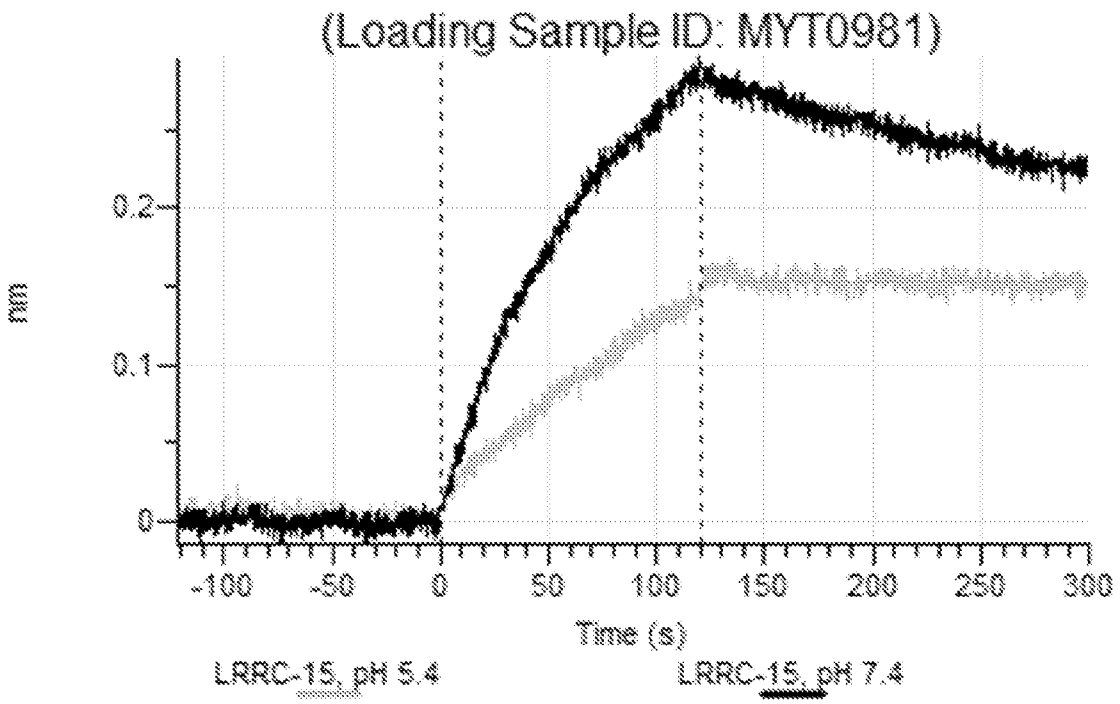

(Loading Sample ID: MYT0981)
nm
0.2
0.1
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2S

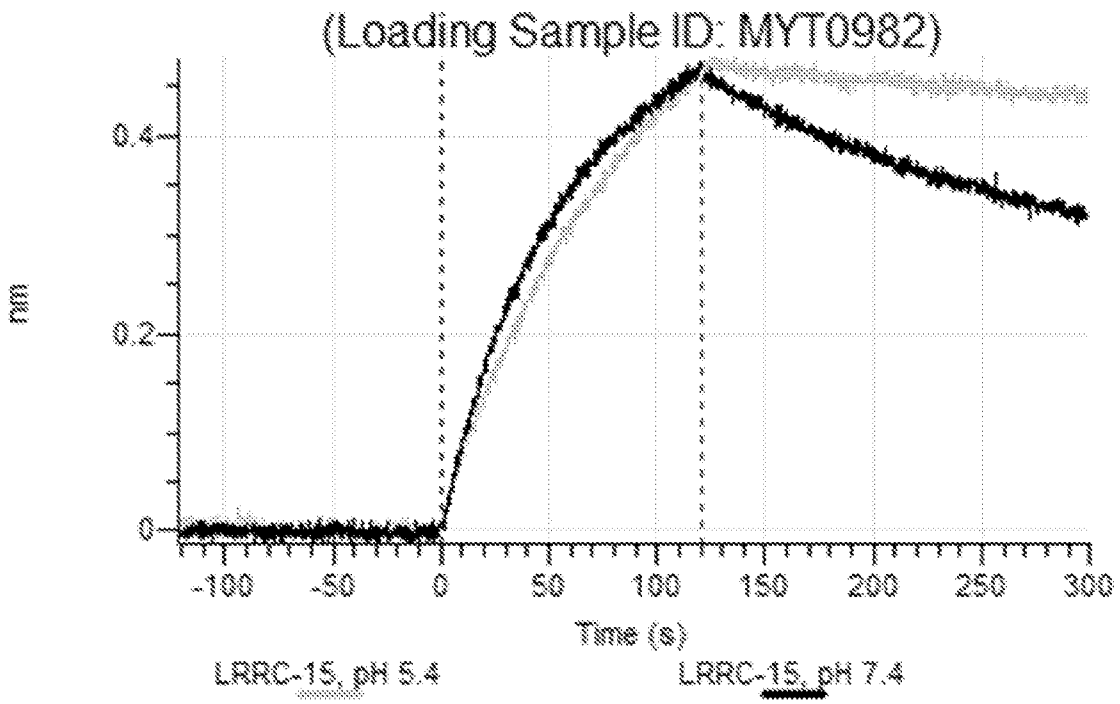

(Loading Sample ID: MYT0982)
nm
0.4
0.2
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2T

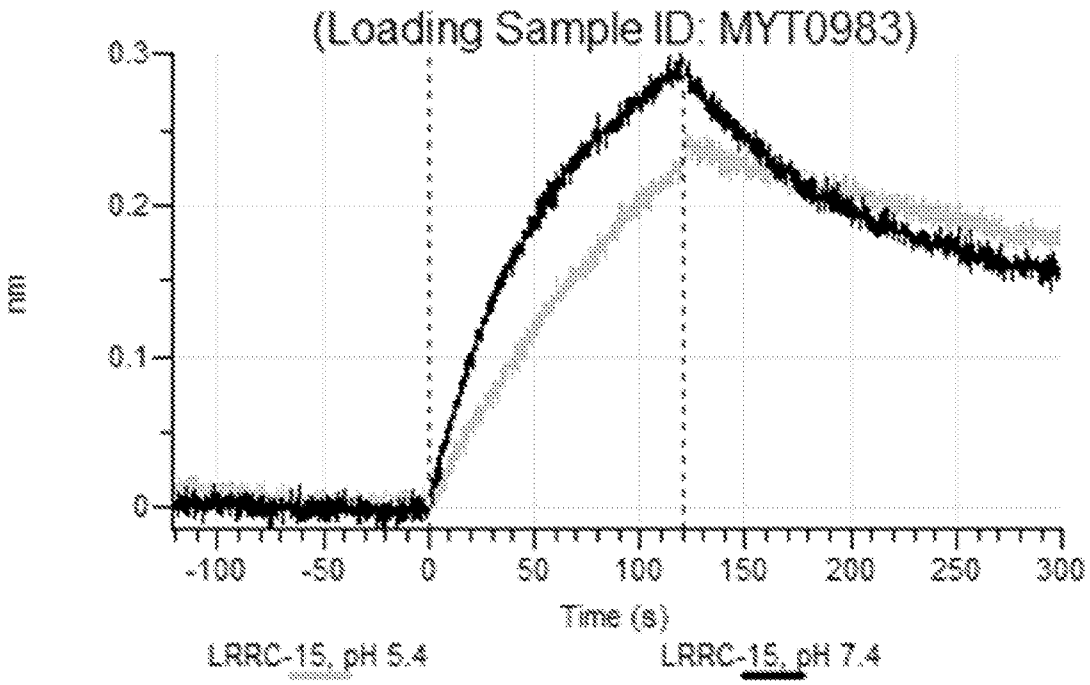

(Loading Sample ID: MYT0983)
nm
0.3
0.2
0.1
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2U

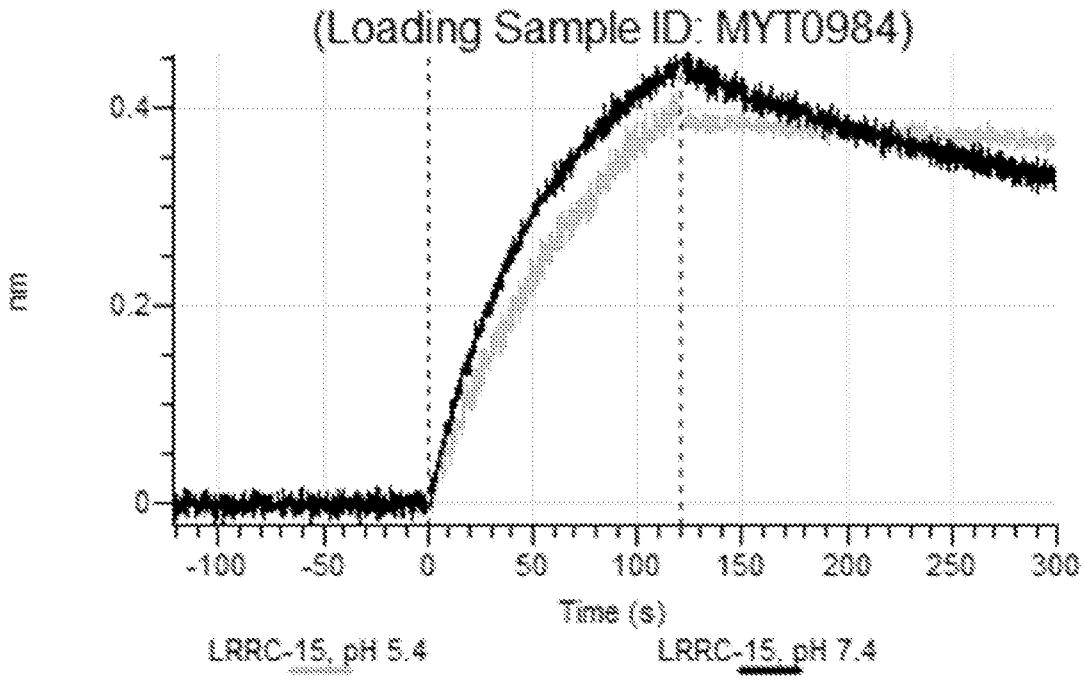

(Loading Sample ID: MYT0984)
nm
0.4
0.2
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2V

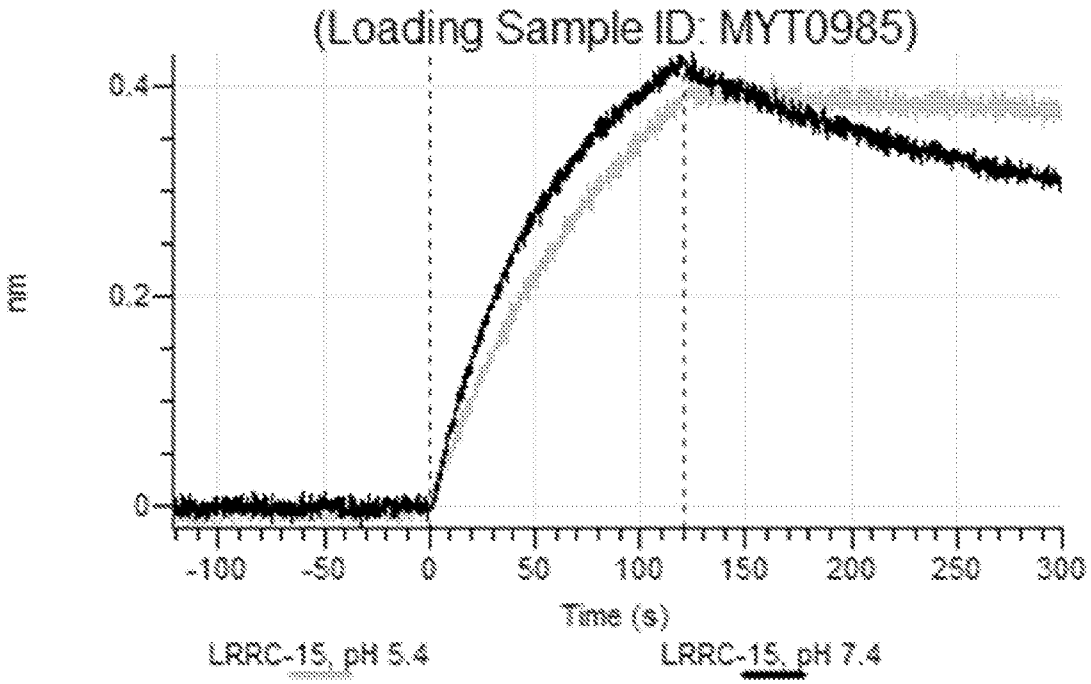

(Loading Sample ID: MYT0985)
nm
0.4
0.2
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2W

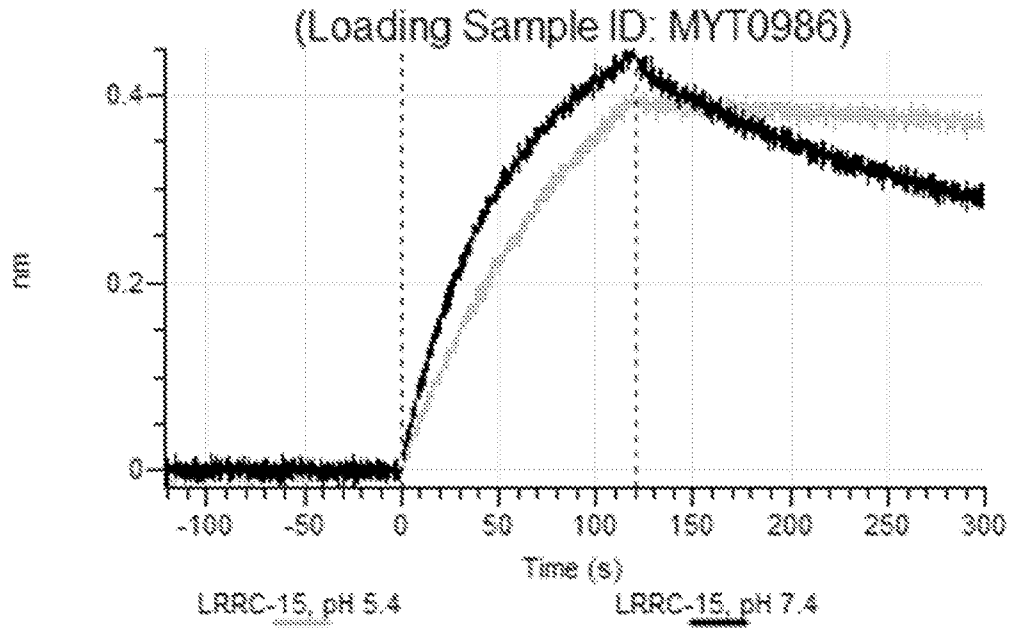

(Loading Sample ID: MYT0986)
nm
0.4
0.2
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2X

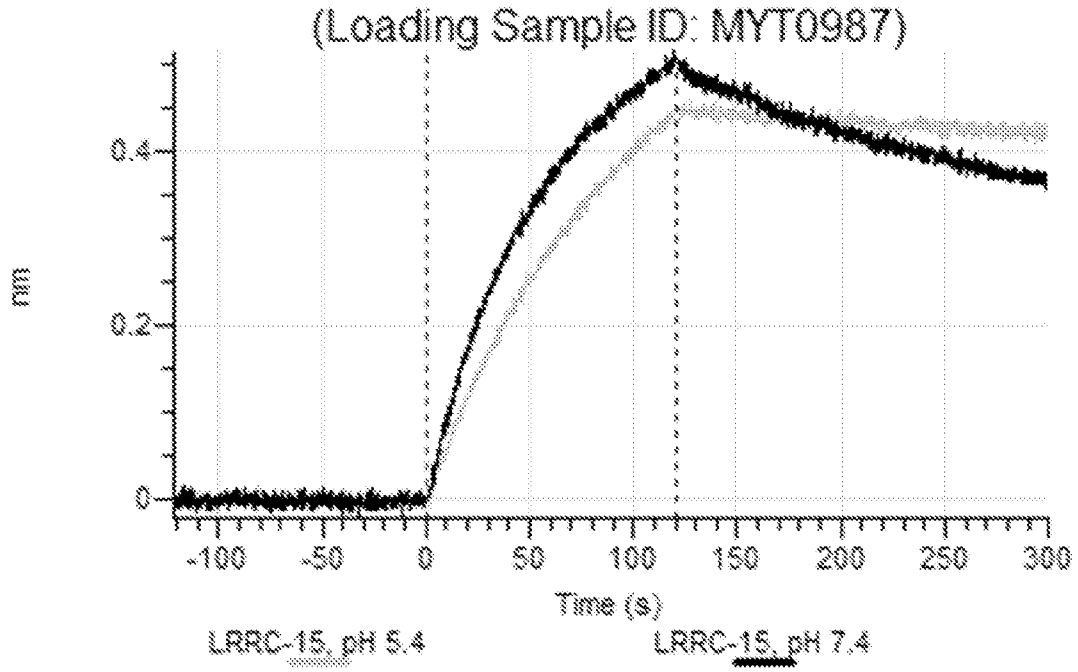

(Loading Sample ID: MYT0987)
nm
0.4
0.2
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2Y

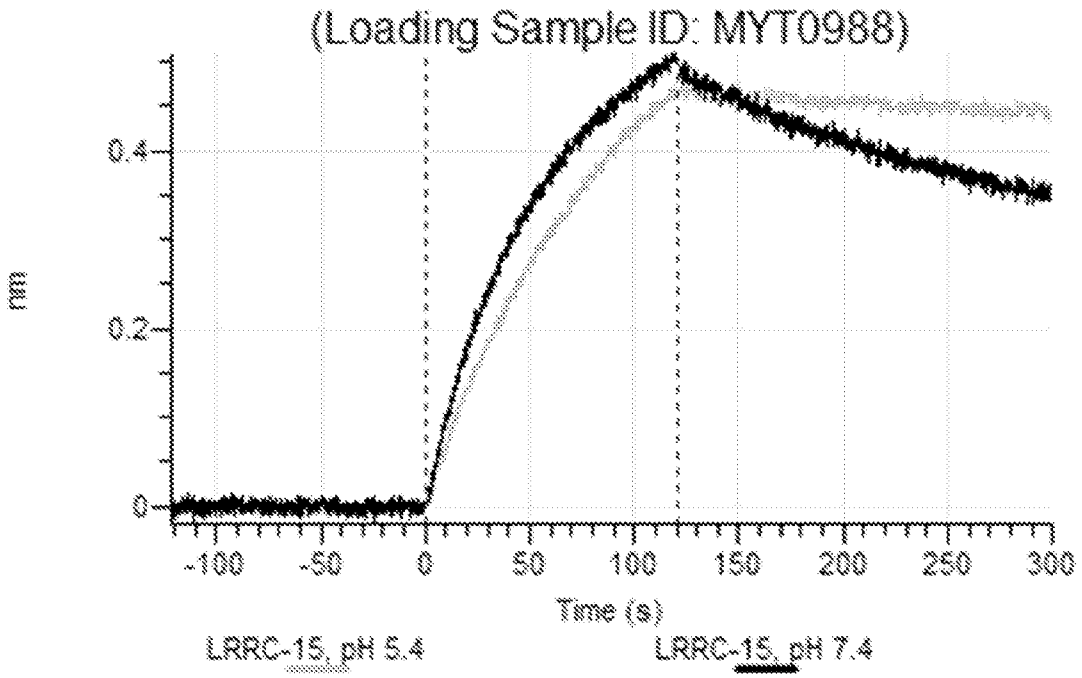

(Loading Sample ID: MYT0988)
nm
0.4
0.2
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2Z

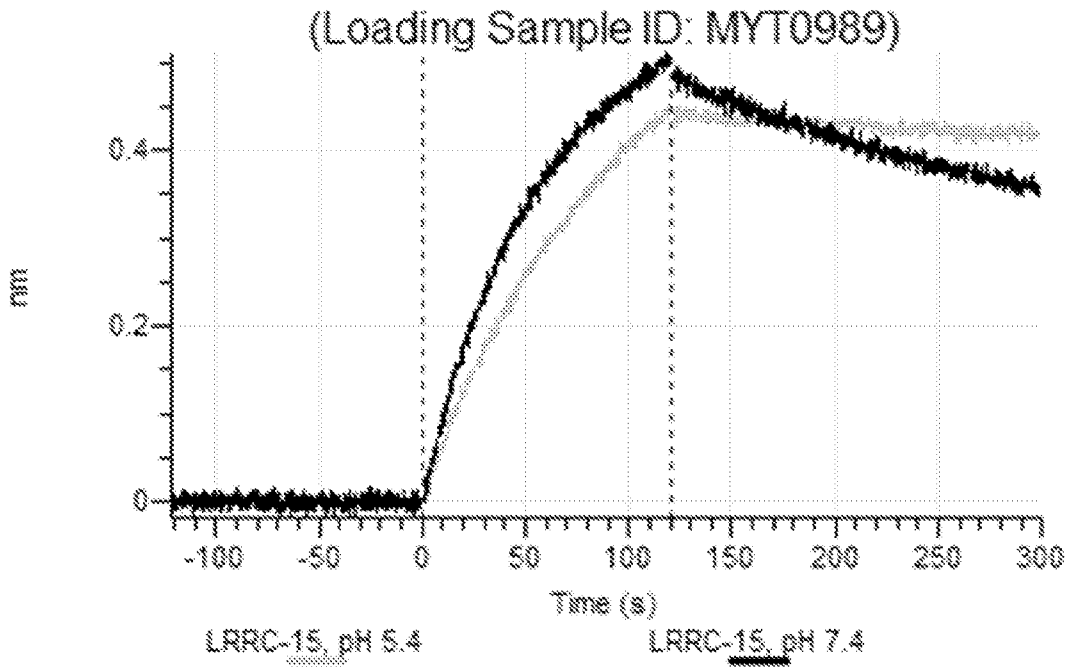

(Loading Sample ID: MYT0989)
nm
0.4
0.2
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2AA

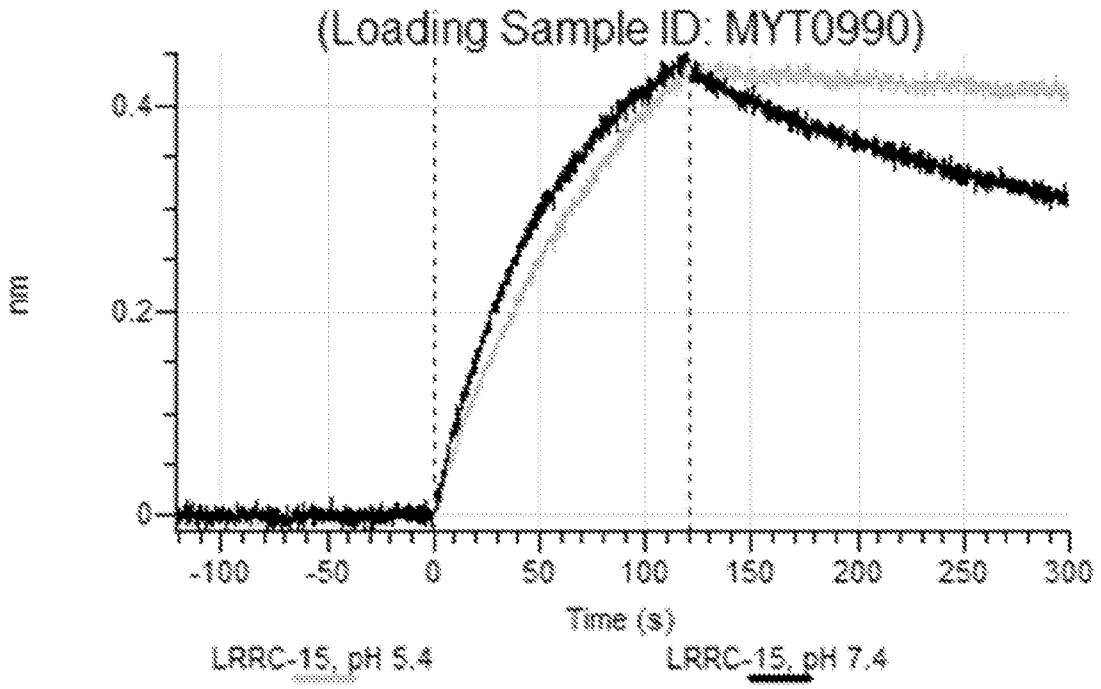

(Loading Sample ID: MYT0990)
nm
0.4
0.2
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2AB

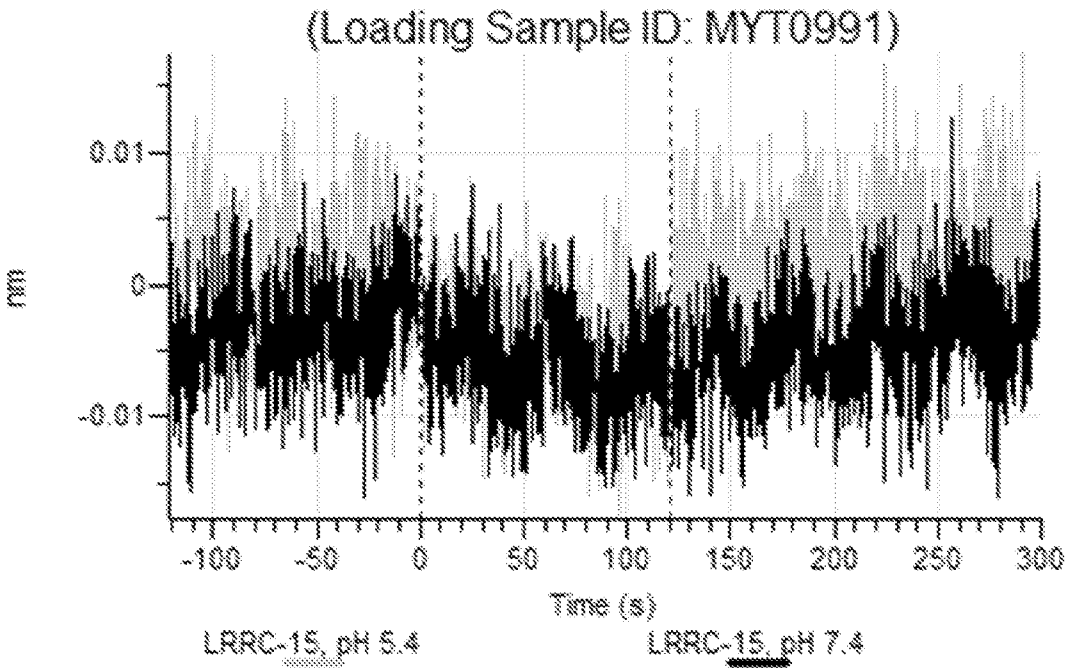

(Loading Sample ID: MYT0991)
nm
0.01
0
-0.01
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2AC

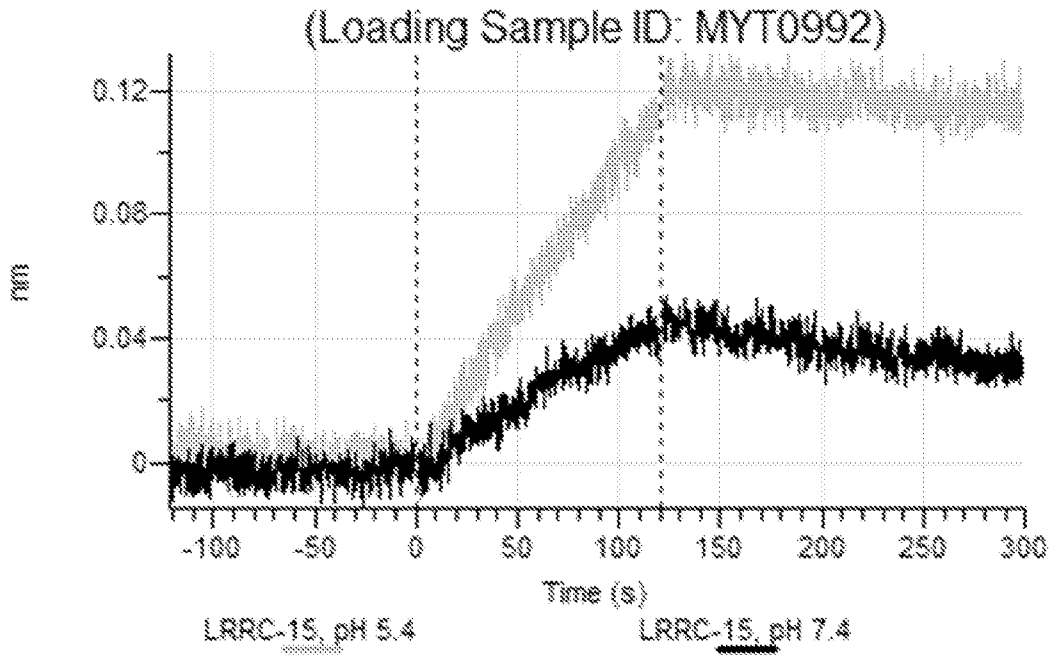

(Loading Sample ID: MYT0992)
0.12
0.08
0.04
0
nm
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2AD

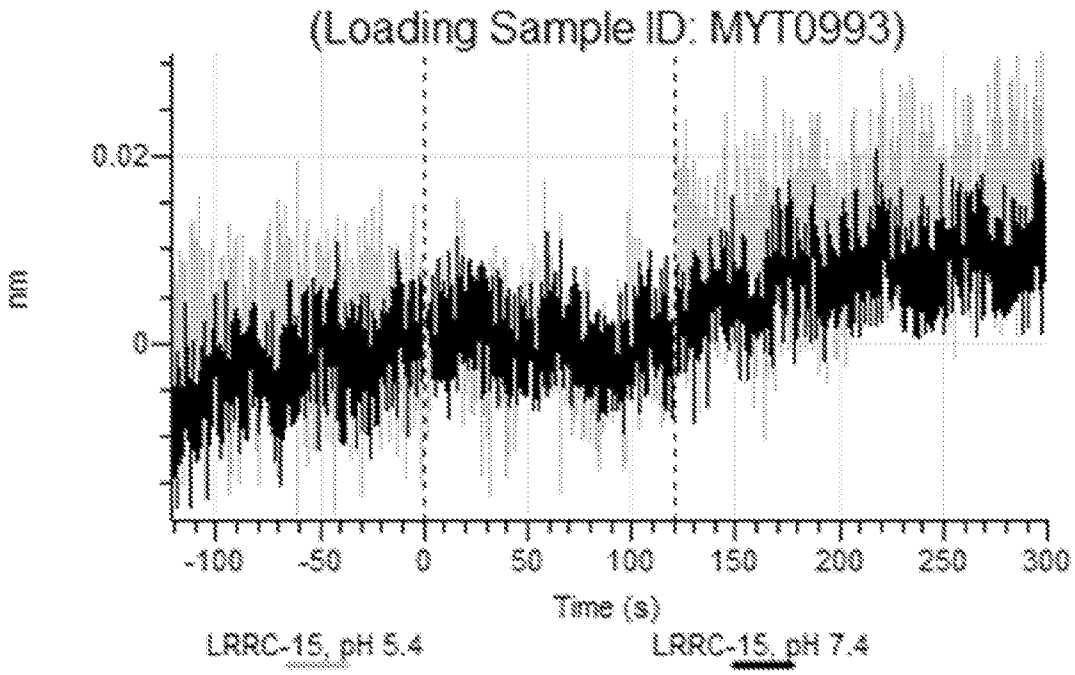

(Loading Sample ID: MYT0993)
nm
0.02
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2AE

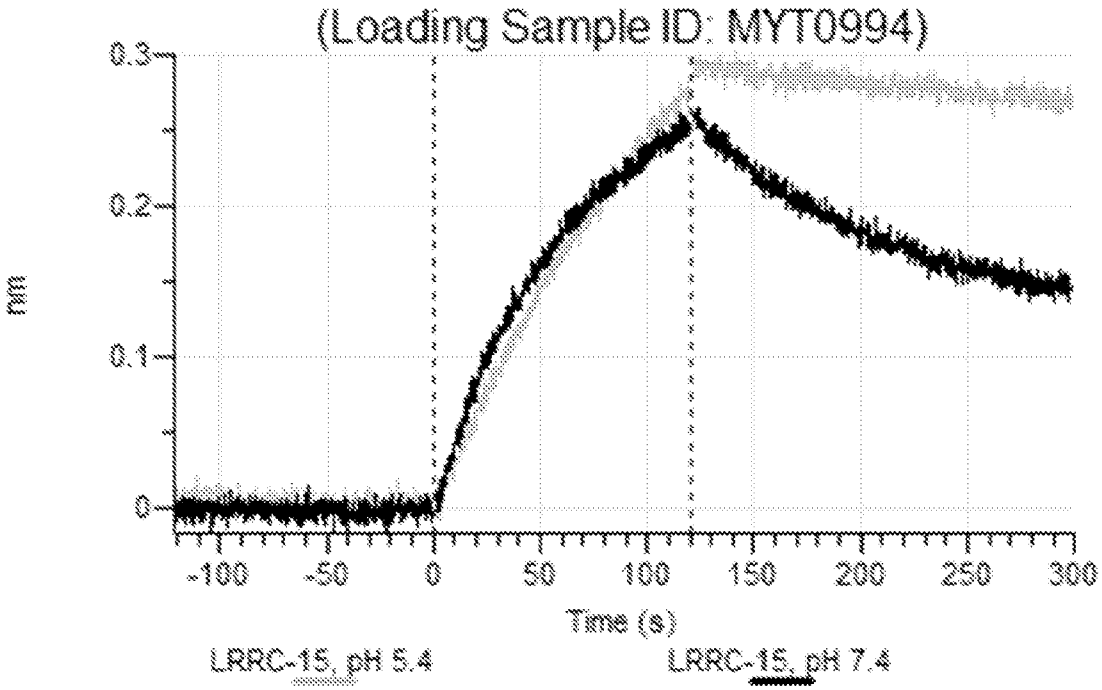

(Loading Sample ID: MYT0994)
nm
0.3
0.2
0.1
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2AF

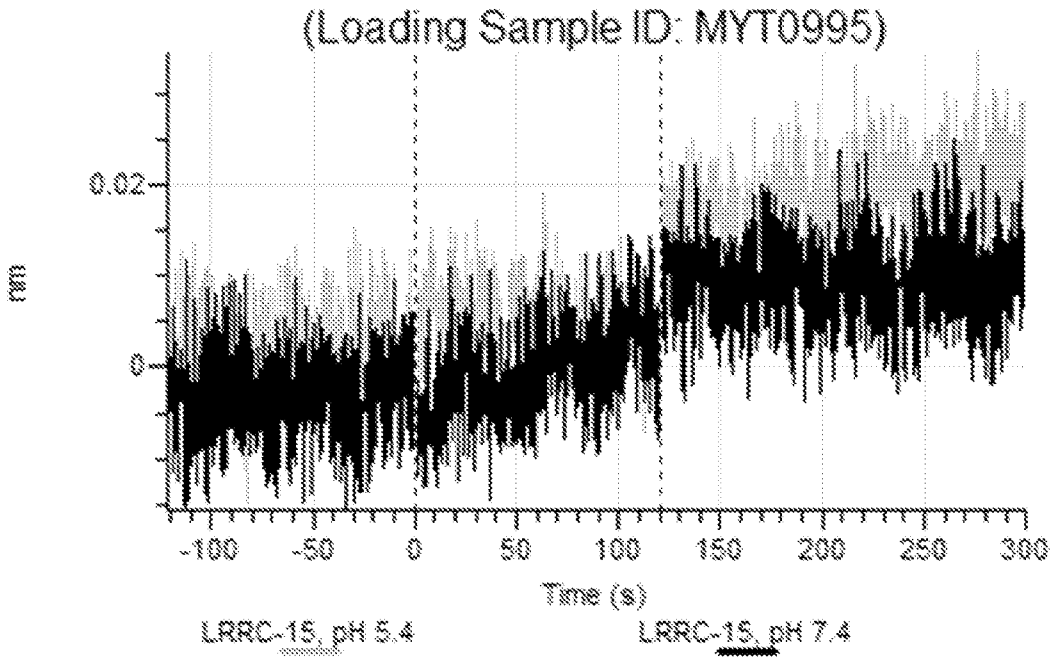

(Loading Sample ID: MYT0995)
0.02
0
nm
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2AG

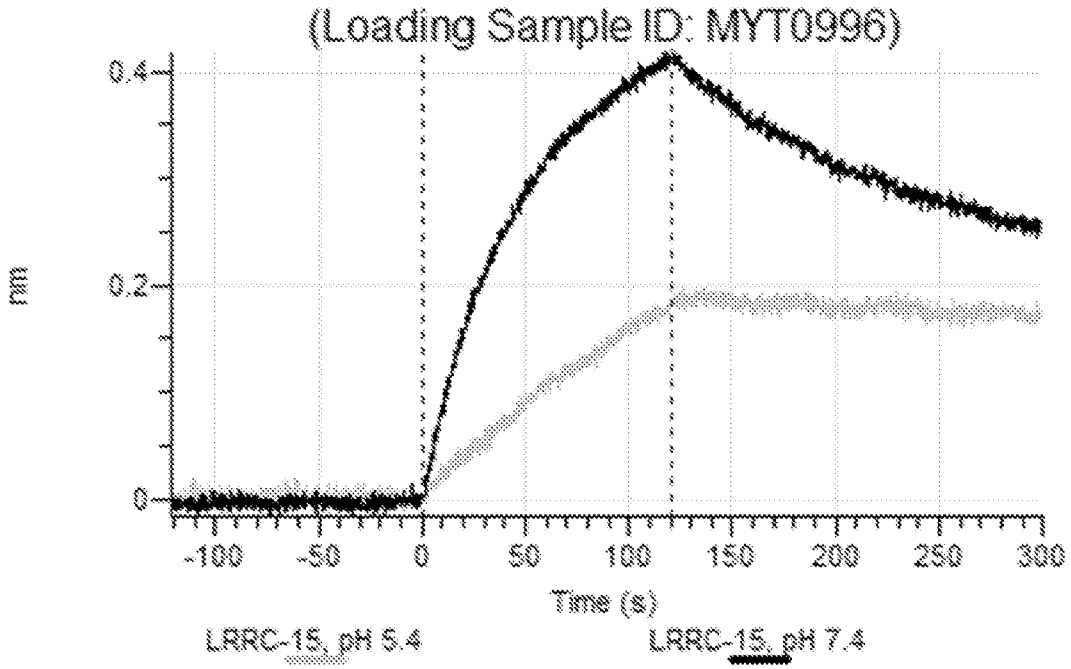

(Loading Sample ID: MYT0996)
nm
0.4
0.2
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2AH

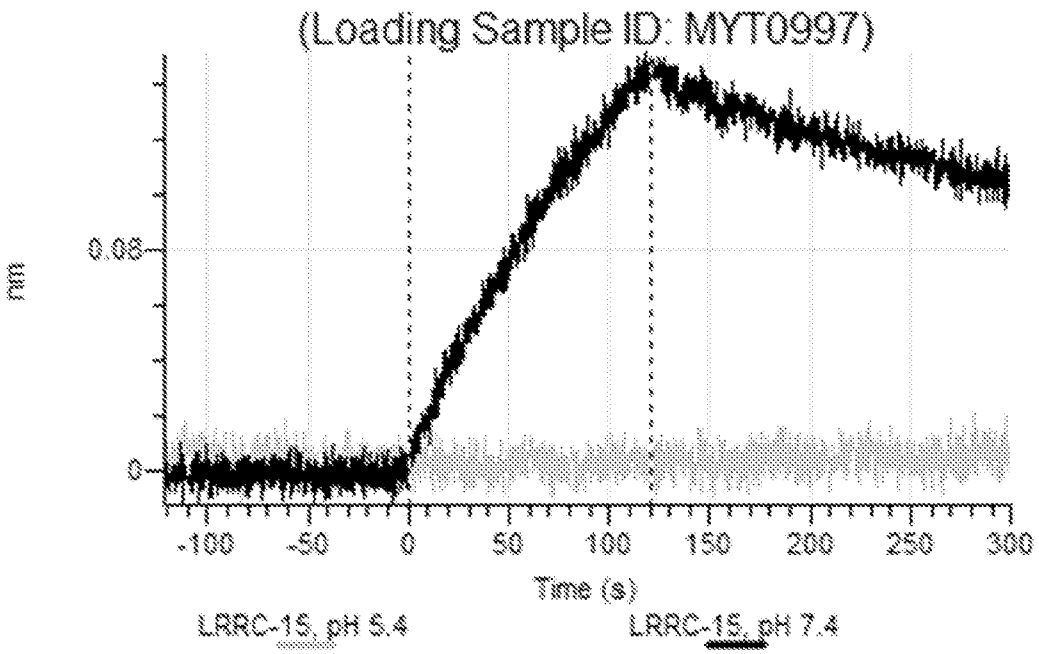

(Loading Sample ID: MYT0997)
nm
0.08
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2AI

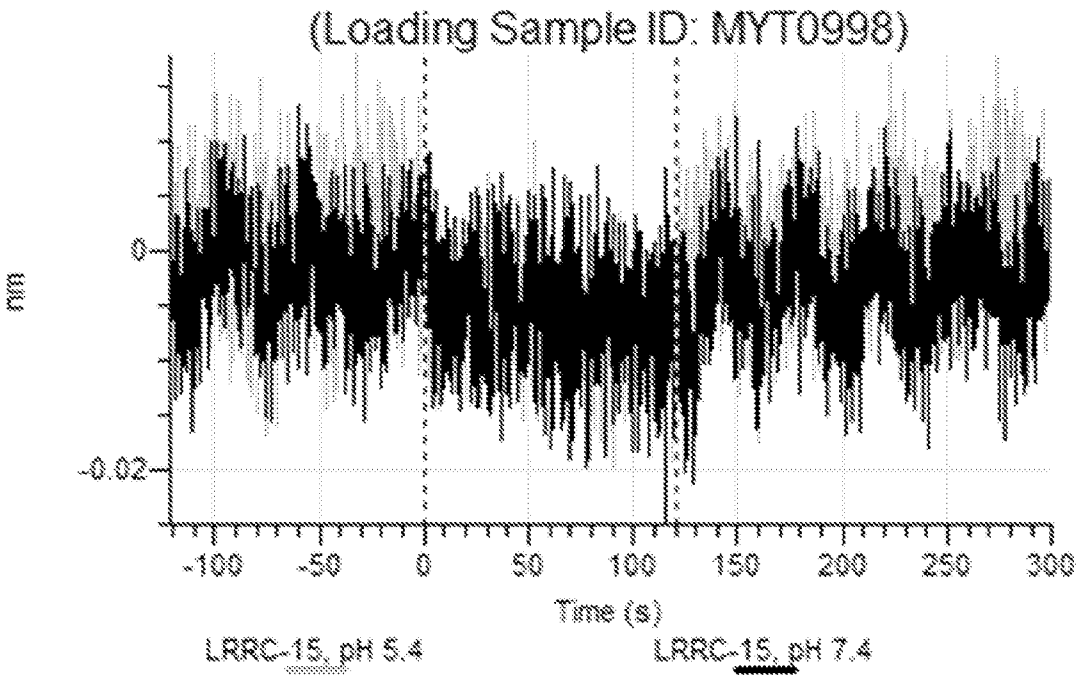

(Loading Sample ID: MYT0998)
nm
0
-0.02
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2AJ

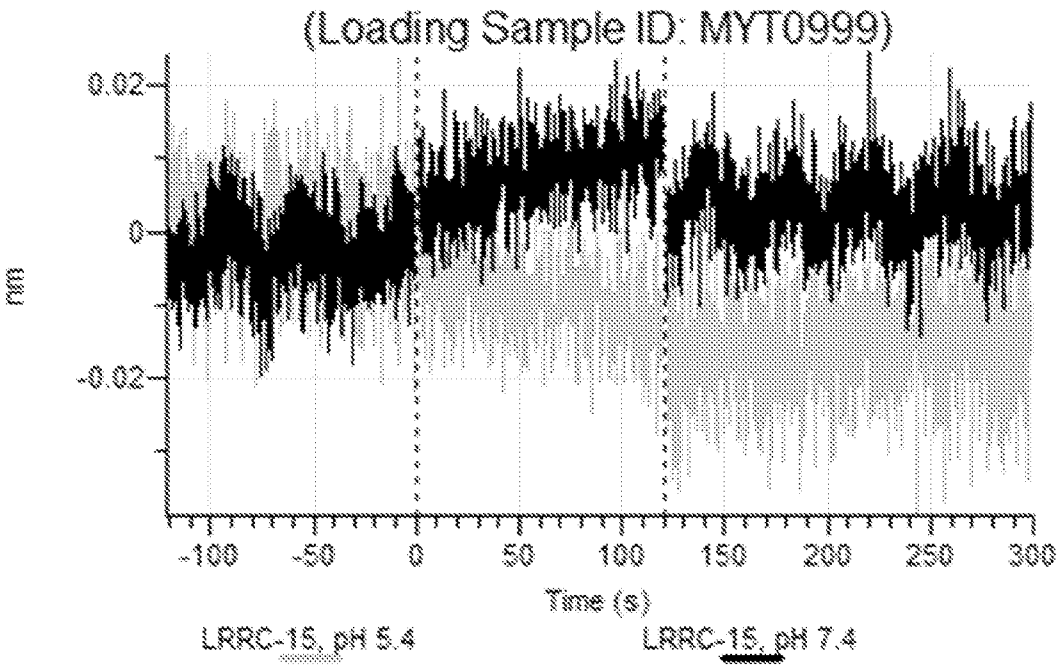

(Loading Sample ID: MYT0999)
0.02
0
-0.02
nm
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2AK

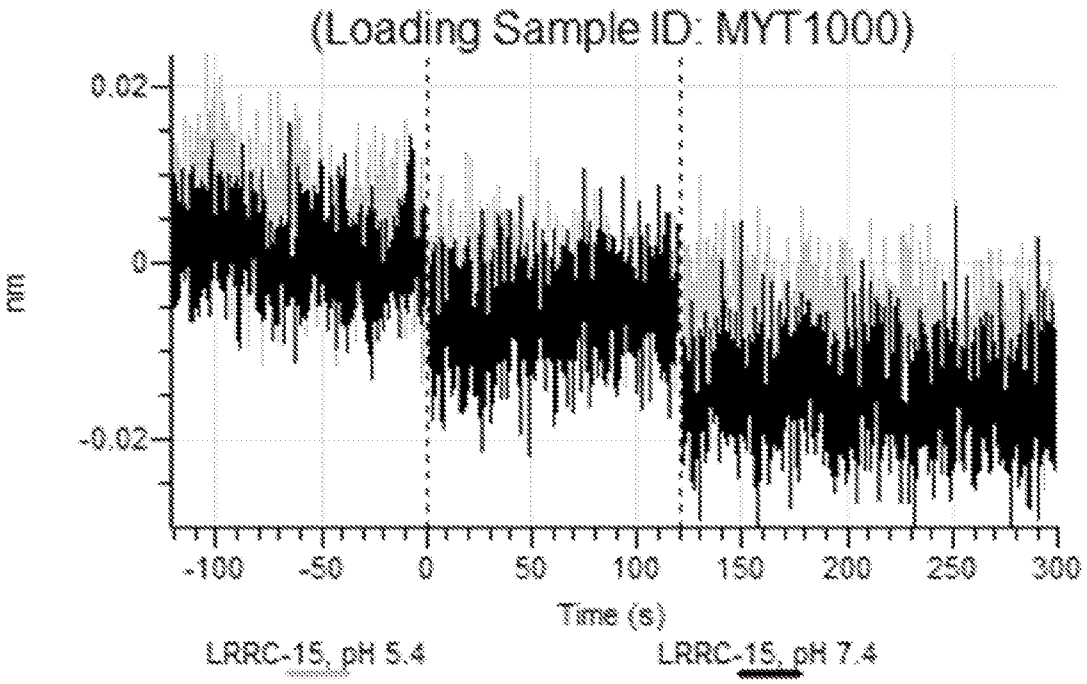

(Loading Sample ID: MYT1000)
0.02
0
-0.02
nm
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2AL

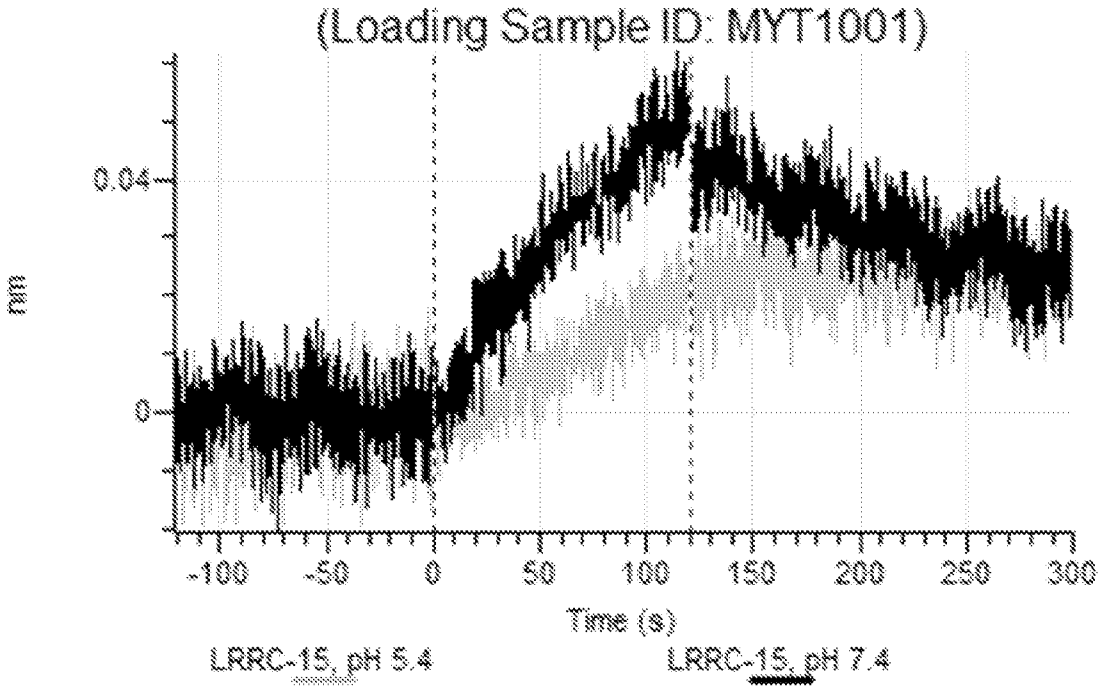

(Loading Sample ID: MYT1001)
0.04
0
(nm)
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2AM

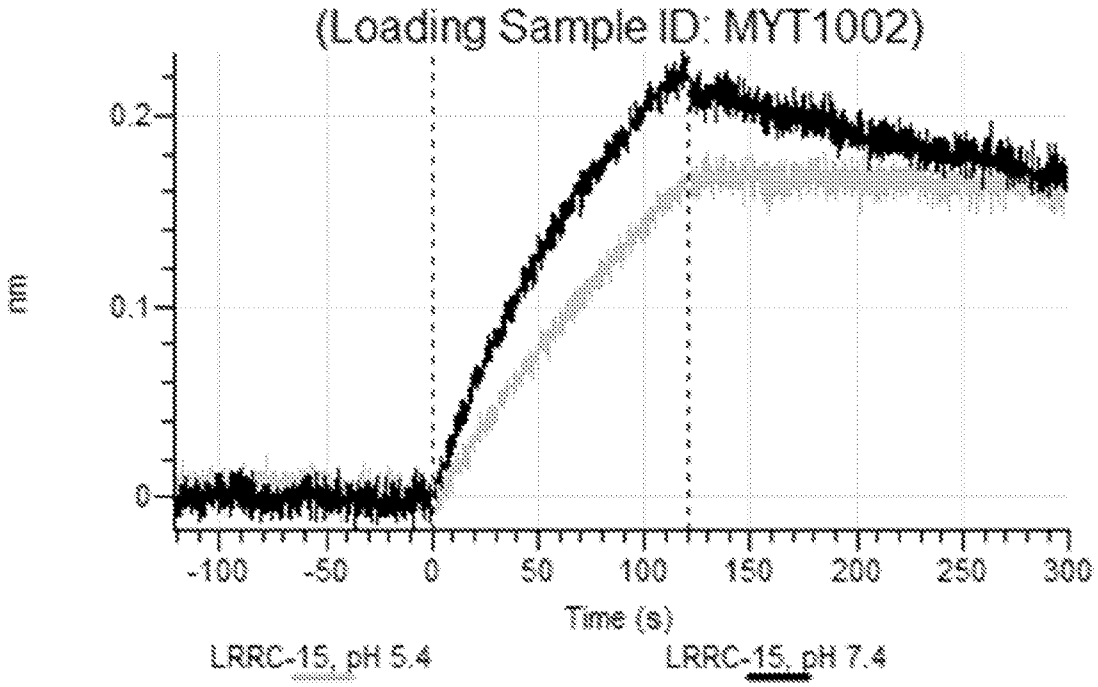

(Loading Sample ID: MYT1002)
nm
0.2
0.1
0
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2AN

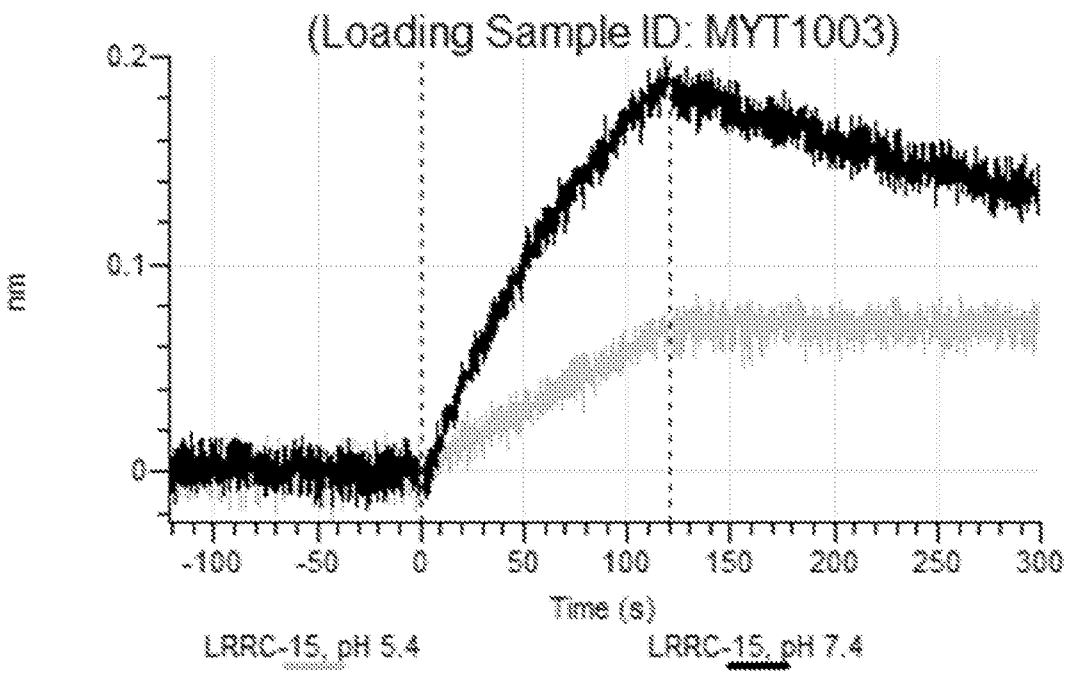

(Loading Sample ID: MYT1003)
0.2
0.1
0
nm
-100
-50
0
50
100
150
200
250
300
Time (s)
LRRC-15, pH 5.4
LRRC-15, pH 7.4

FIG. 2AO

	Heavy	Light	CDRH1	CDRH2	CDRH3	CDRL1	CDRL2	CDRL3
MYT0963 (samrotamab)	1	2	3	4	5	6	7	8
MYT0964	13	2						
MYT0965	14	2						
MYT0966	15	2						
MYT0967	16	2						
MYT0968	17	2						
MYT0969	18	2						
MYT0970	19	2						
MYT0971	20	2						
MYT0972	21	2						
MYT0973	22	2						
MYT0974	23	2						
MYT0975	24	2						
MYT0976	25	2						
MYT0977	26	2						
MYT0978	27	2						
MYT0979	28	2						
MYT0980	29	2						
MYT0981	30	2						
MYT0982	31	2						
MYT0983	32	2						
MYT0984	33	2						
MYT0985	34	2						
MYT0986	35	2						
MYT0987	36	2						
MYT0988	37	2						
MYT0989	38	2						
MYT0990	39	2						
MYT0991	40	2						
MYT0992	41	2						
MYT0993	42	2						
MYT0994	43	2						
MYT0995	44	2						
MYT0996	45	2						
MYT0997	46	2						
MYT0998	47	2						
MYT0999	48	2						
MYT1000	49	2						
MYT1001	50	2						
MYT1002	51	2						
MYT1003	52	2						

FIG. 3

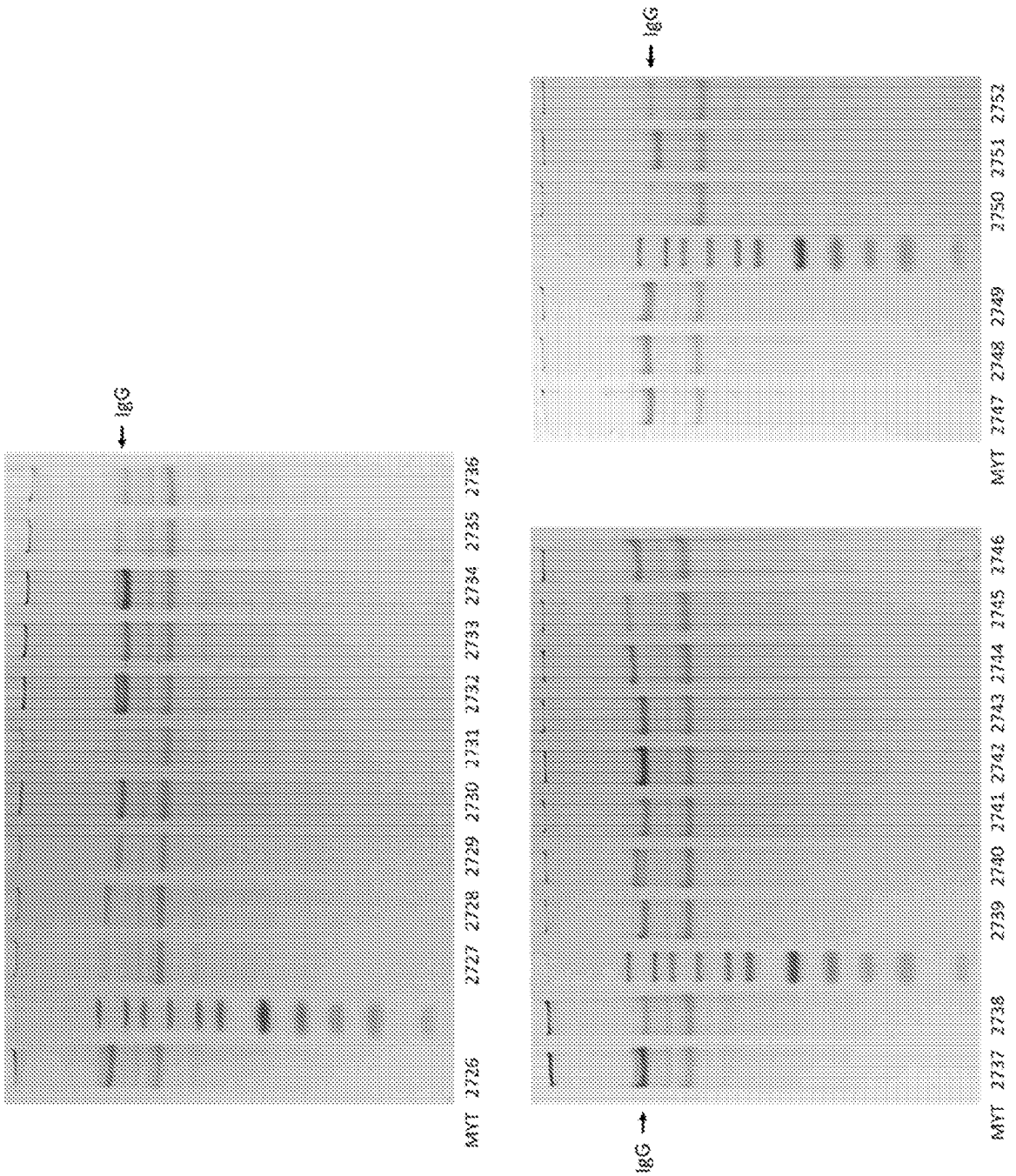

IgG
MYT 2726 2727 2728 2729 2730 2731 2732 2733 2734 2735 2736
IgG
MYT 2737 2738 2739 2740 2741 2742 2743 2744 2745 2746
IgG
MYT 2747 2748 2749 2750 2751 2752

FIG. 4

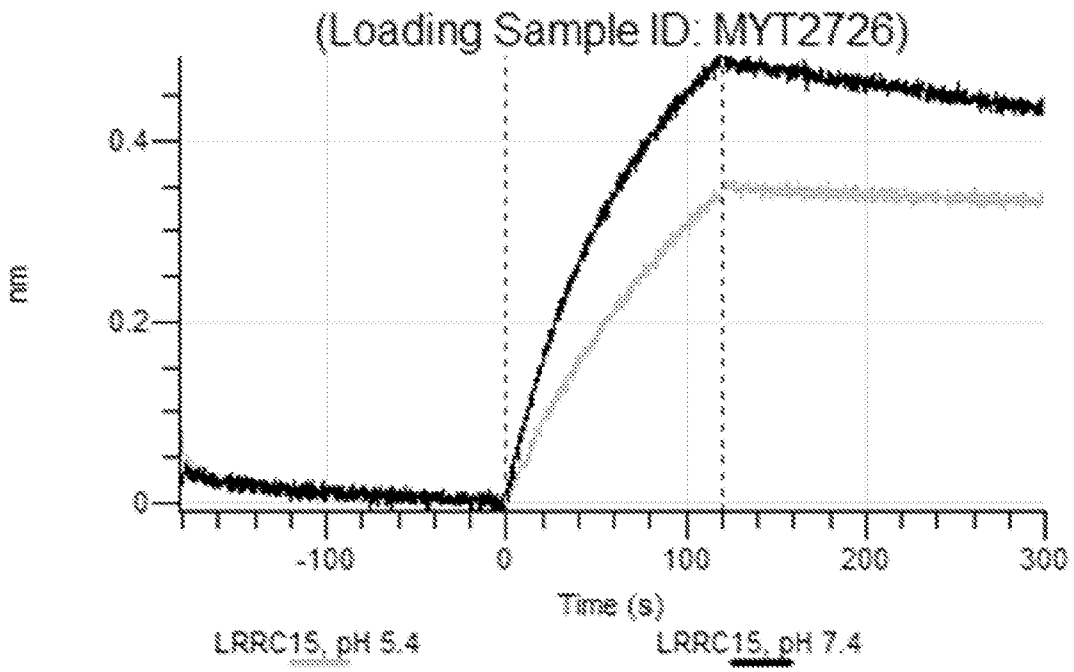

(Loading Sample ID: MYT2726)
nm
0.4
0.2
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5A

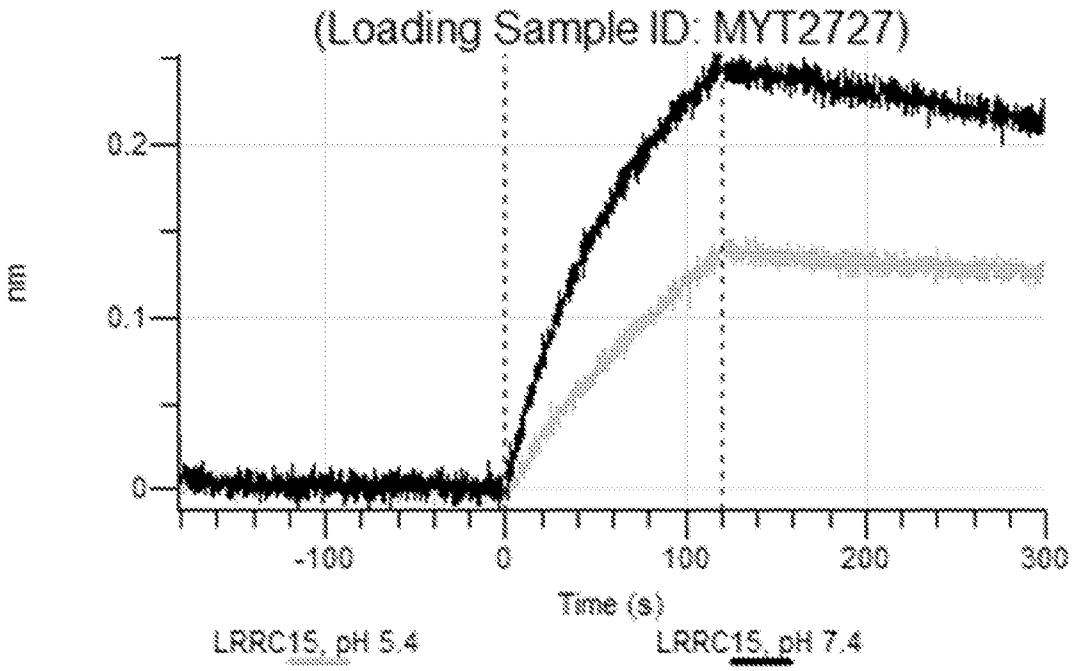

(Loading Sample ID: MYT2727)
nm
0.2
0.1
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5B

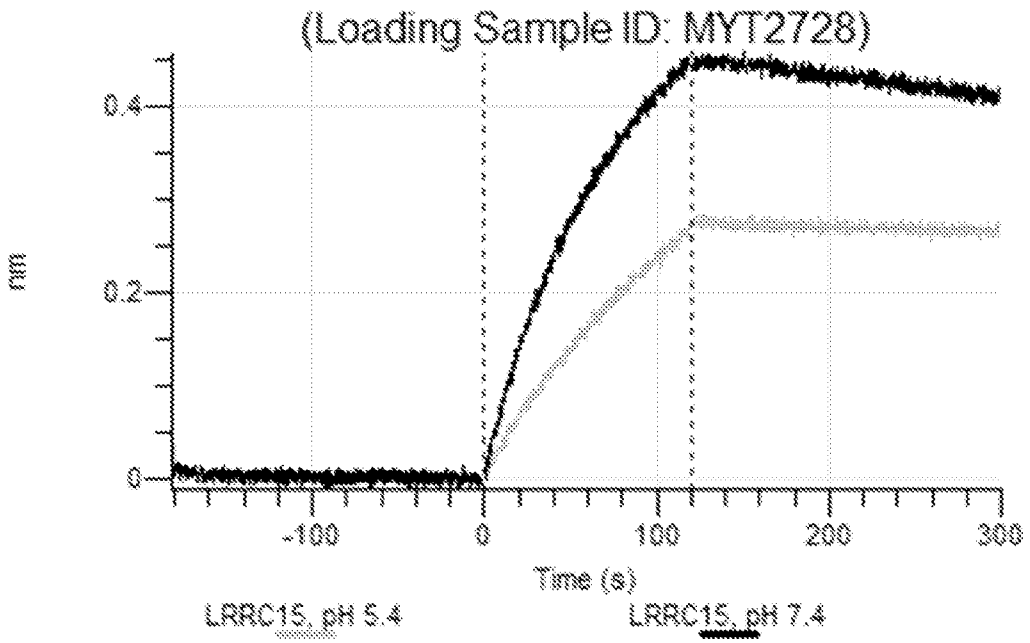

(Loading Sample ID: MYT2728)
nm
0.4
0.2
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5C

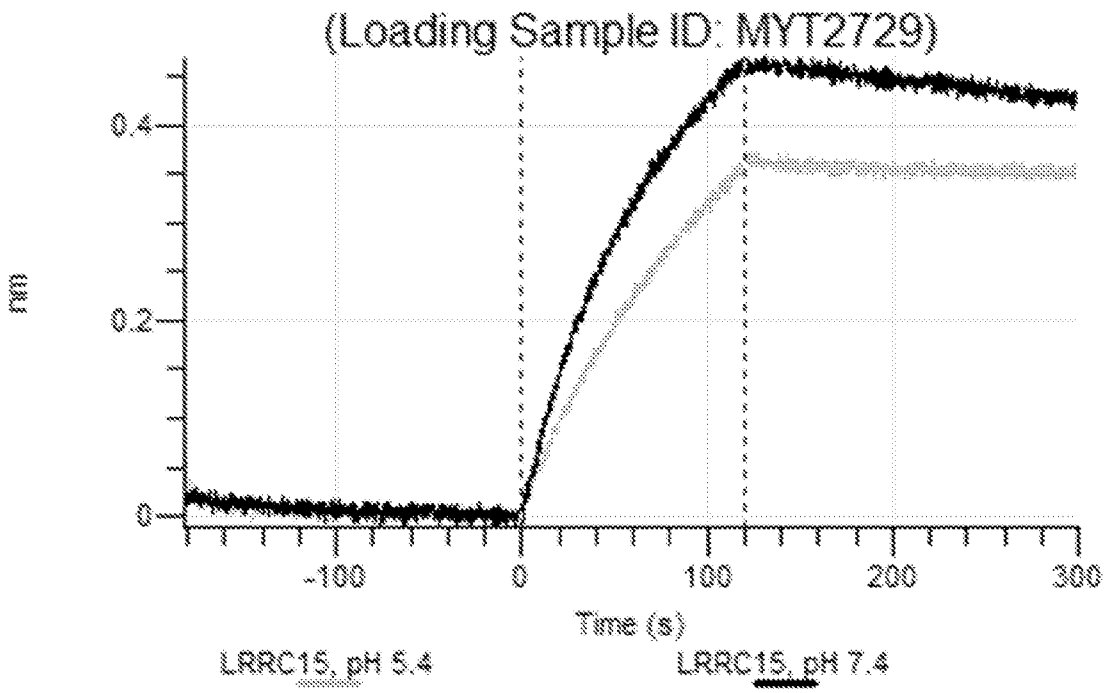

(Loading Sample ID: MYT2729)
nm
0.4
0.2
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5D

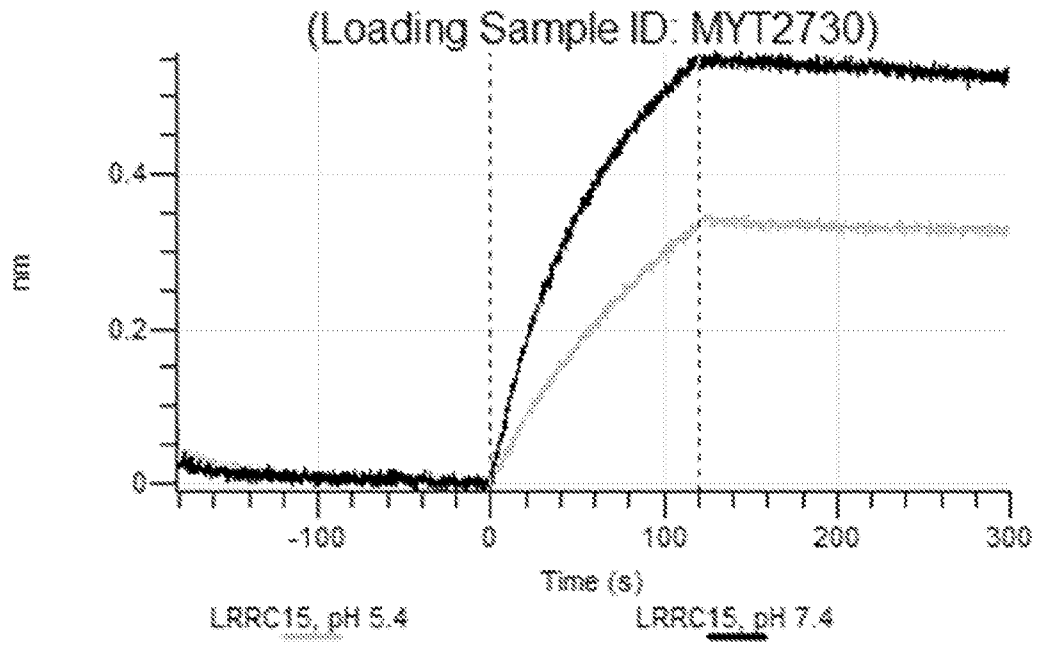

(Loading Sample ID: MYT2730)
nm
0.4
0.2
0
-100
0
100
200
300
Time (s)
LRRC15_pH 5.4
LRRC15_pH 7.4

FIG. 5E

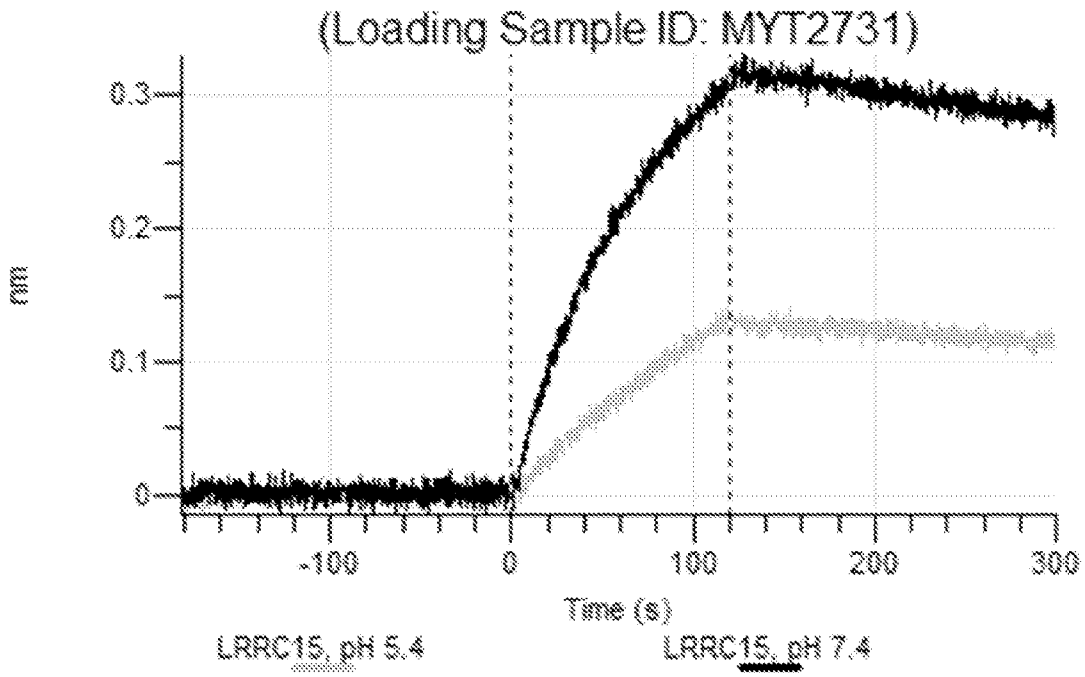

(Loading Sample ID: MYT2731)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5F

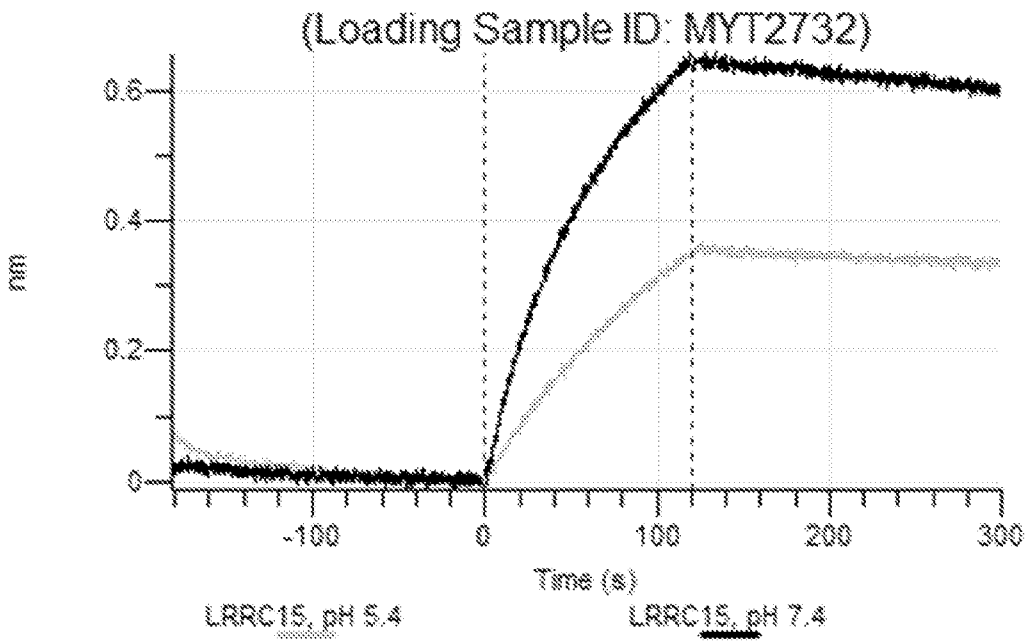

(Loading Sample ID: MYT2732)
nm
0.6
0.4
0.2
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5G

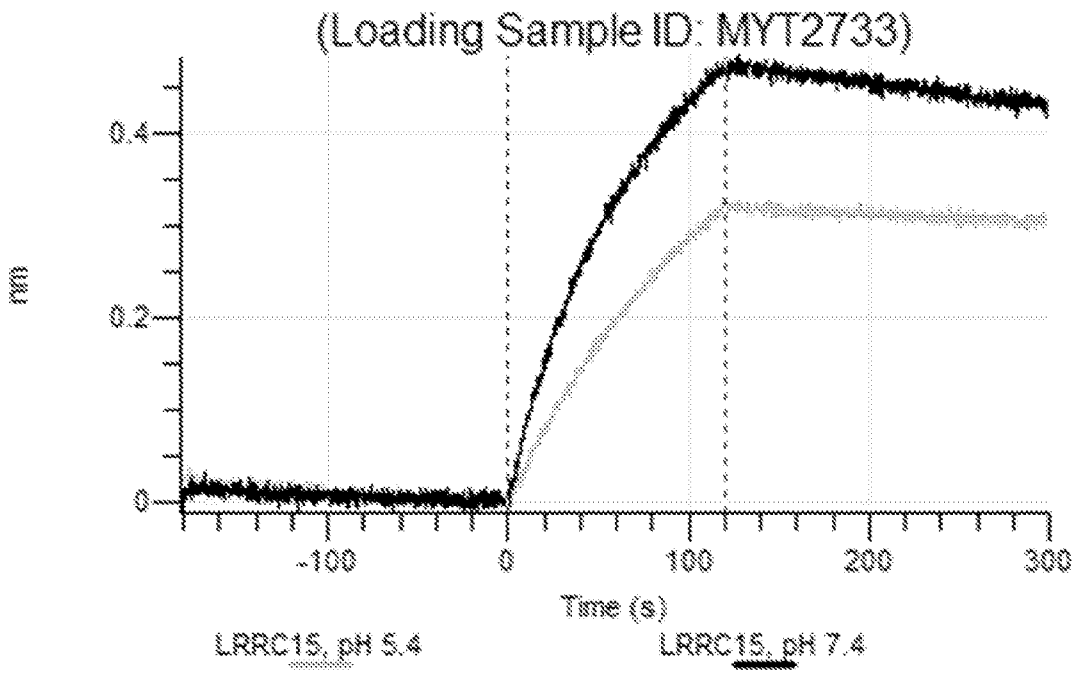

(Loading Sample ID: MYT2733)
nm
0.4
0.2
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5H

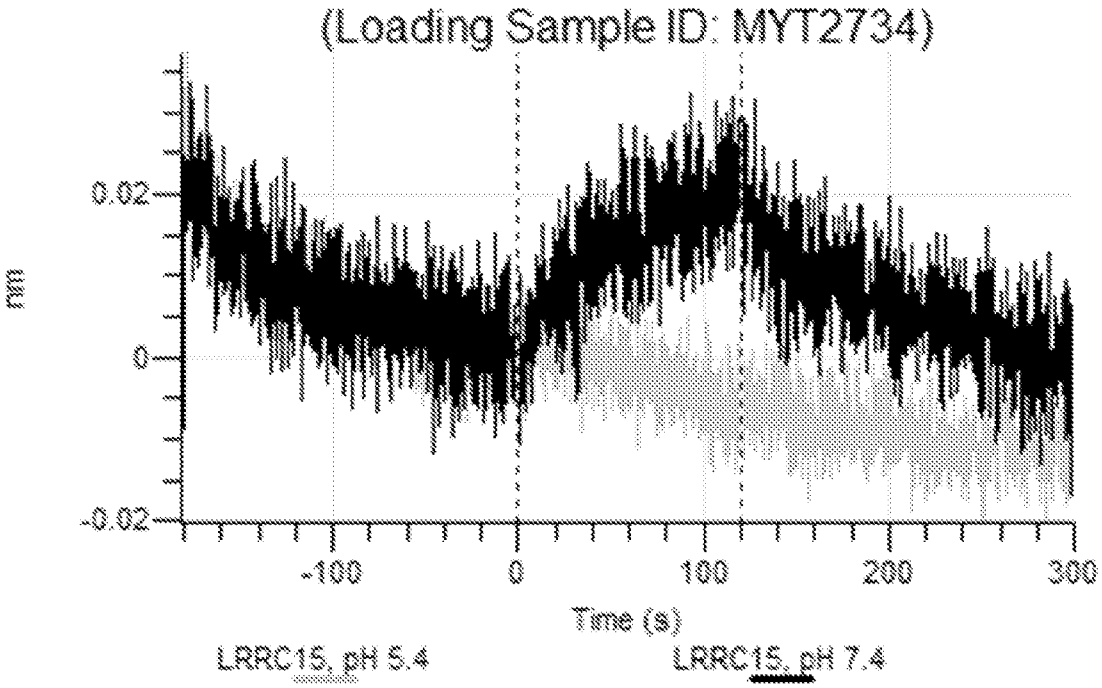

(Loading Sample ID: MYT2734)
nm
0.02
0
-0.02
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5I

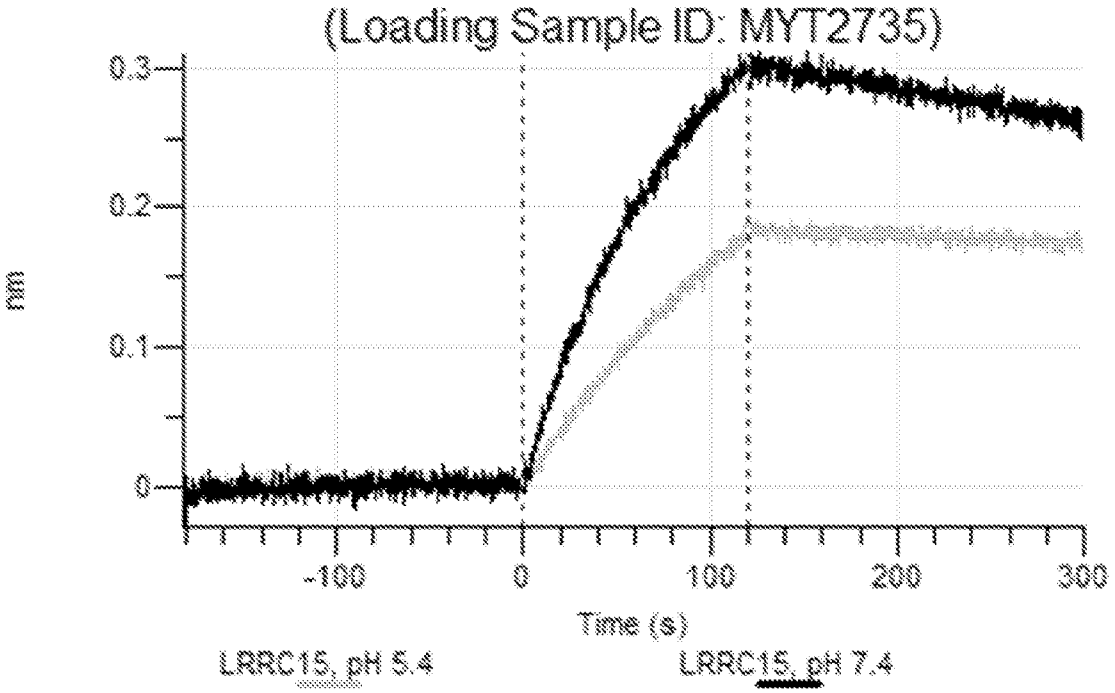

(Loading Sample ID: MYT2735)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5J

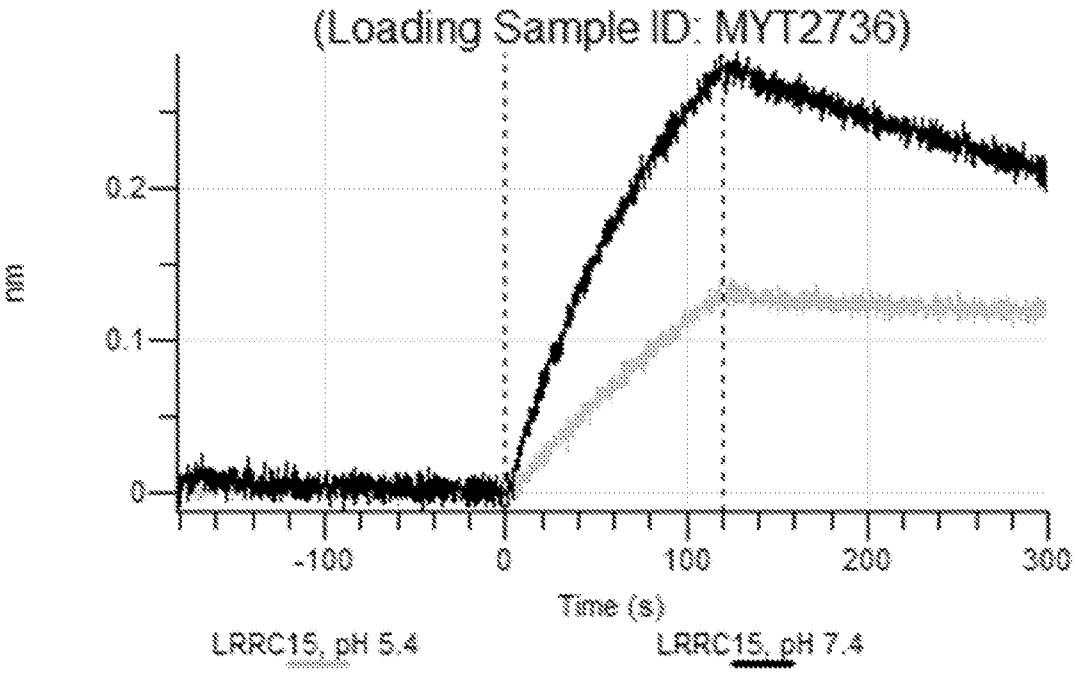

(Loading Sample ID: MYT2736)
nm
0.2
0.1
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5K

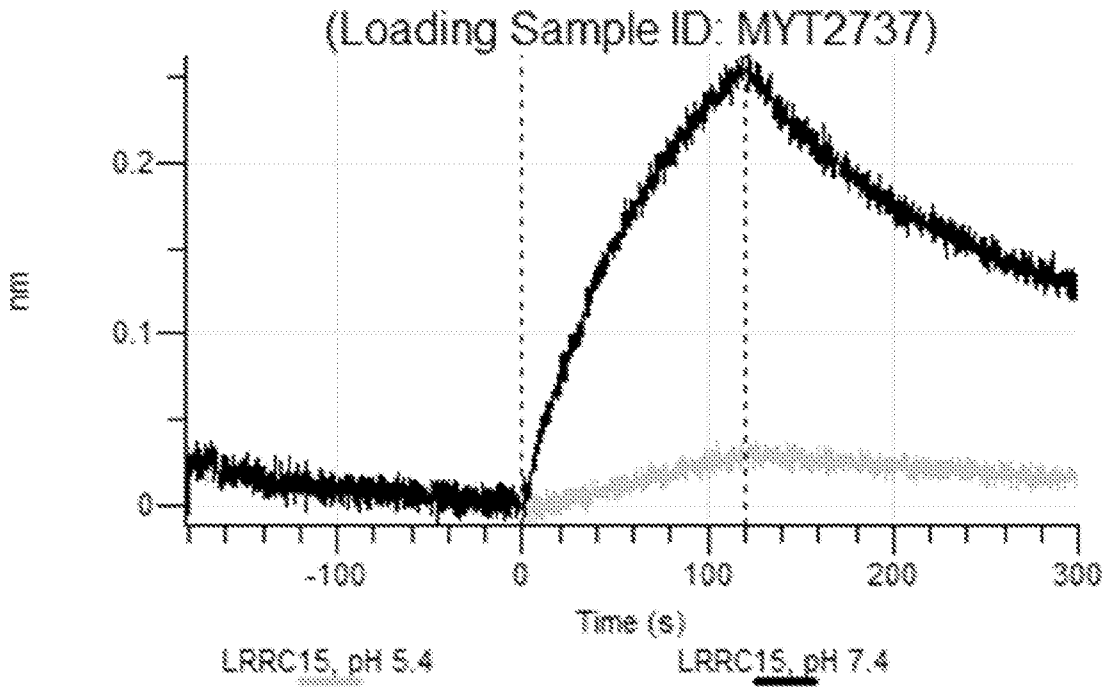

(Loading Sample ID: MYT2737)
nm
0.2
0.1
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5L

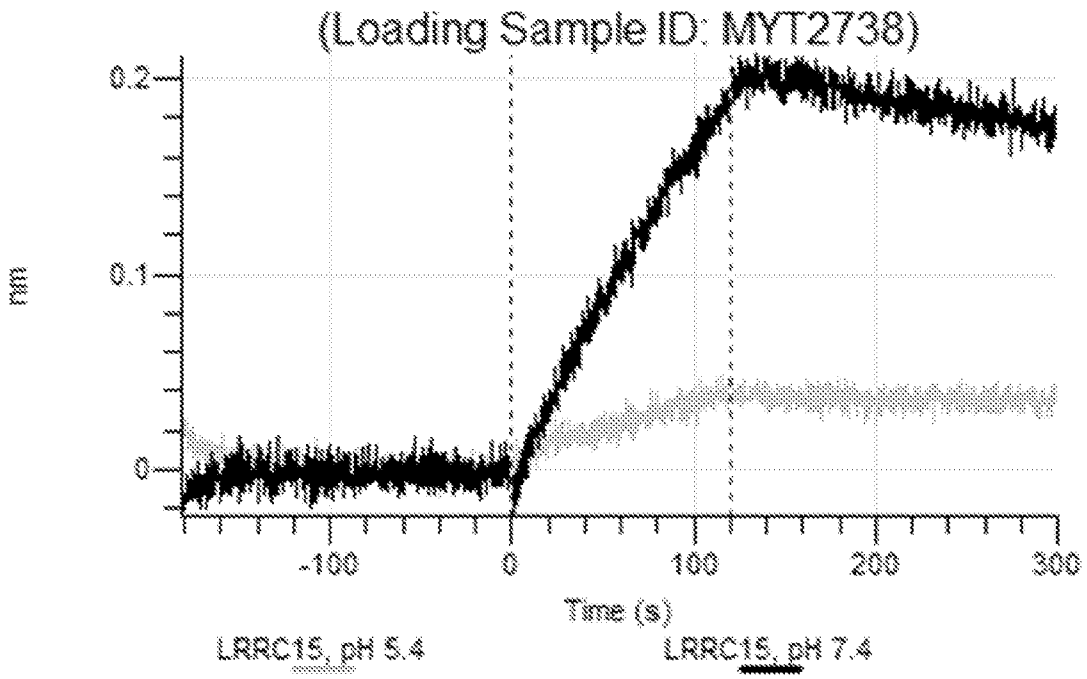

(Loading Sample ID: MYT2738)
nm
0.2
0.1
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5M

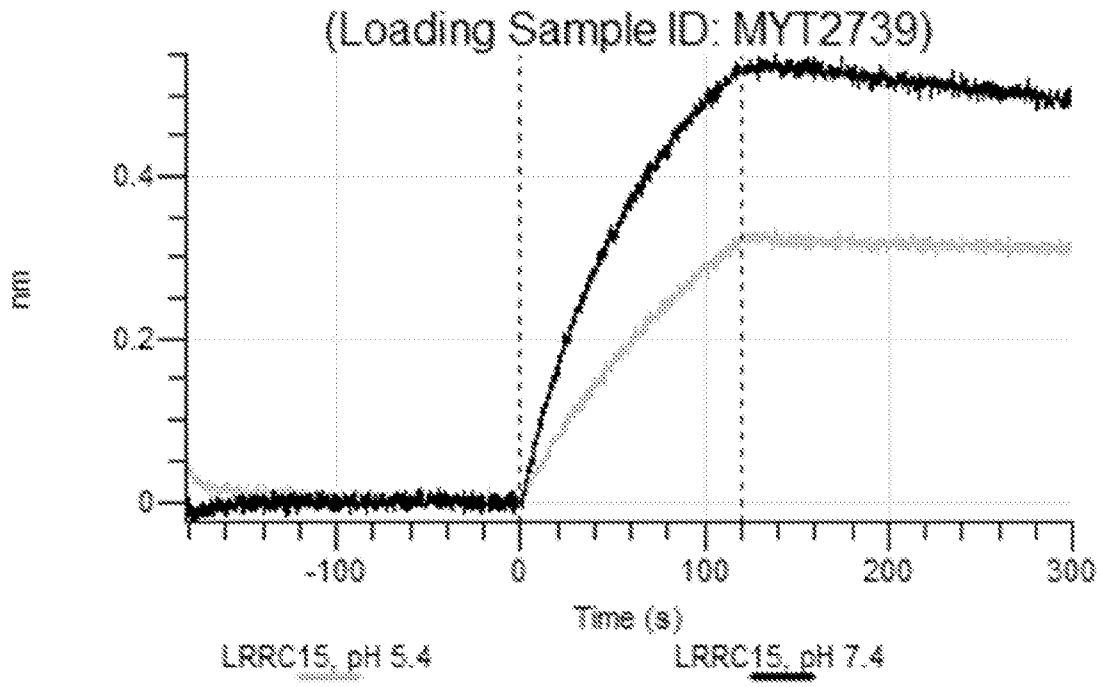

(Loading Sample ID: MYT2739)
nm
0.4
0.2
0
-100
0
100
200
300
Time (s)
LRRC15_pH 5.4
LRRC15_pH 7.4

FIG. 5N

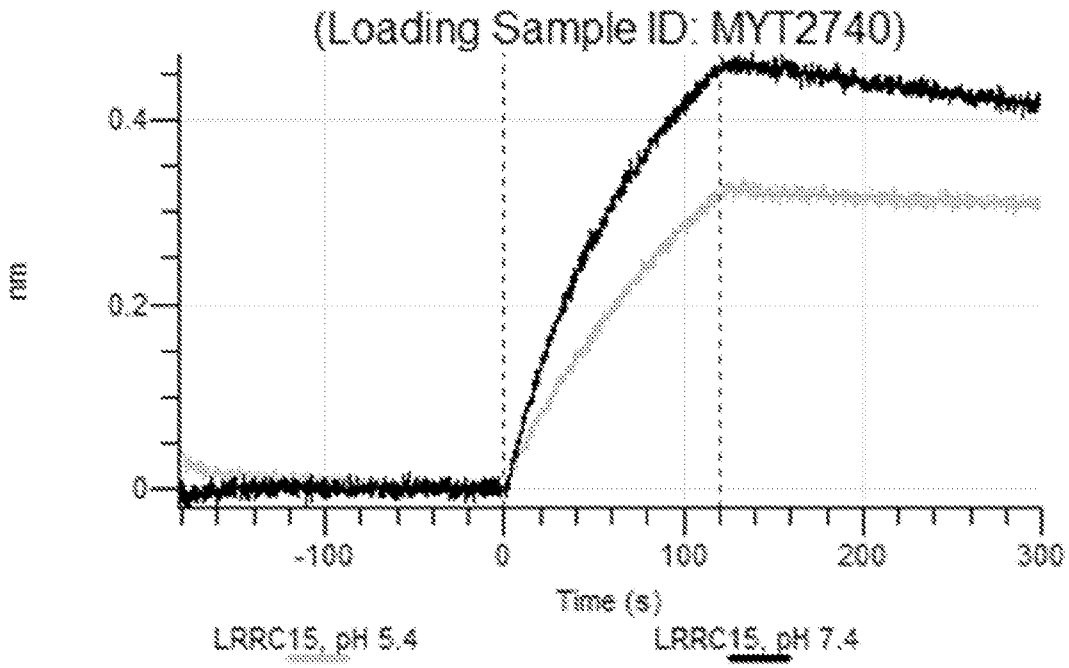

(Loading Sample ID: MYT2740)
0.4
0.2
0
nm
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5O

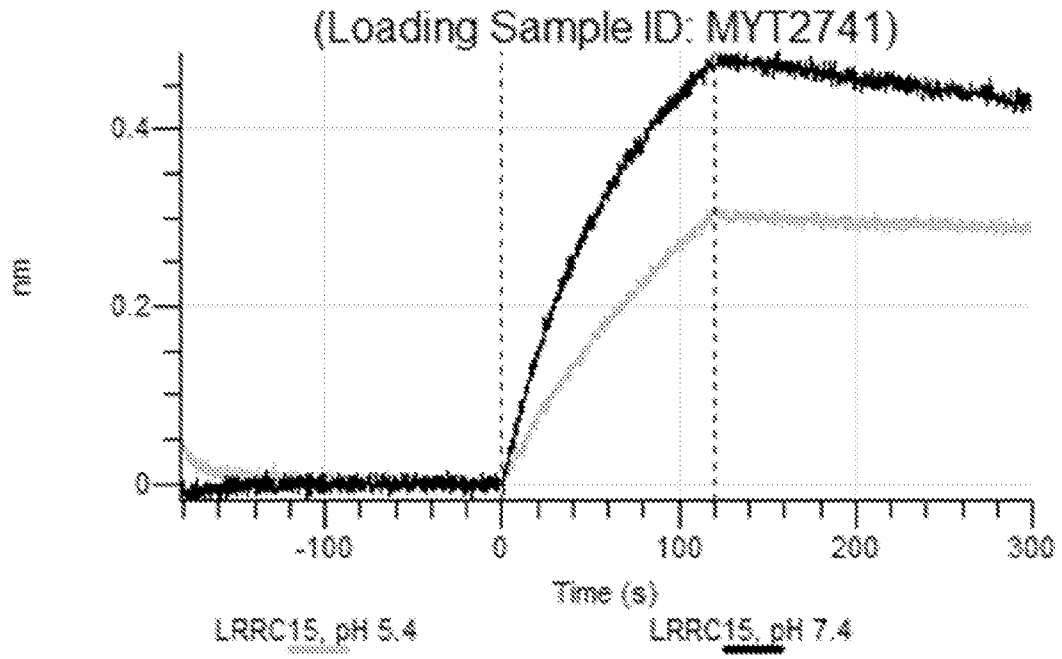

(Loading Sample ID: MYT2741)
nm
0.4
0.2
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5P

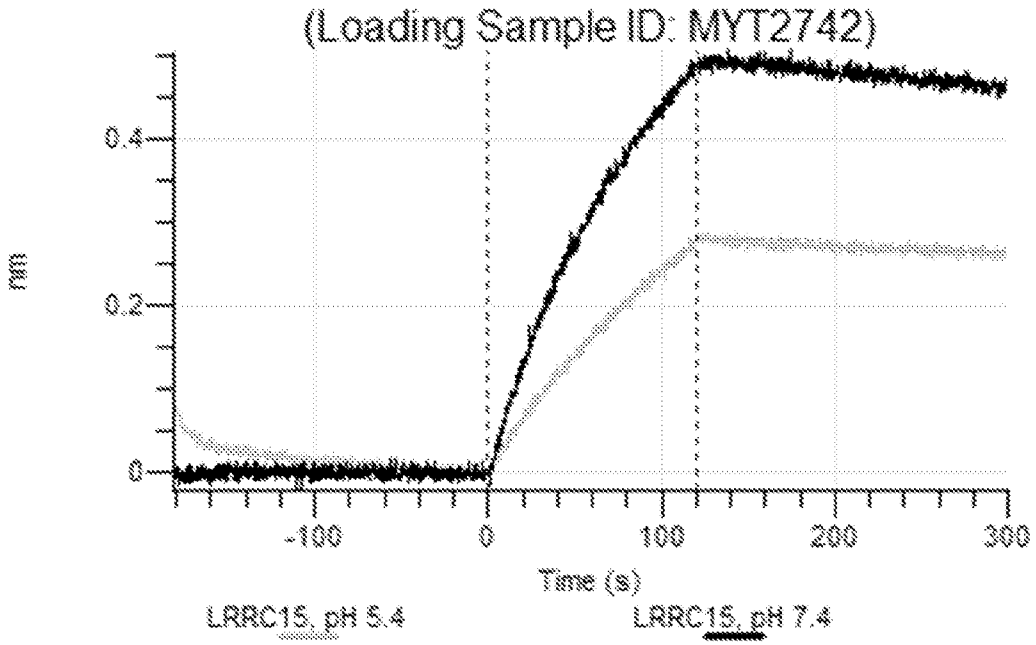

(Loading Sample ID: MYT2742)
nm
0.4
0.2
0
-100
0
100
200
300
Time (s)
LRRC15_pH 5.4
LRRC15_pH 7.4

FIG. 5Q

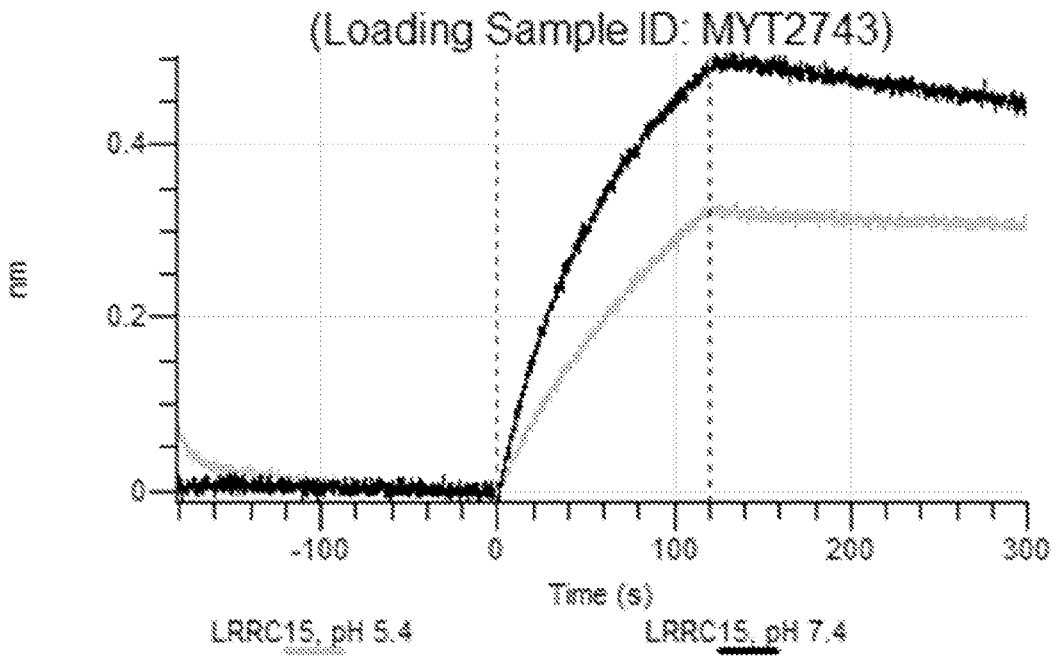

(Loading Sample ID: MYT2743)
nm
0.4
0.2
0
-100
0
100
200
300
Time (s)
LRRC15_pH 5.4
LRRC15_pH 7.4

FIG. 5R

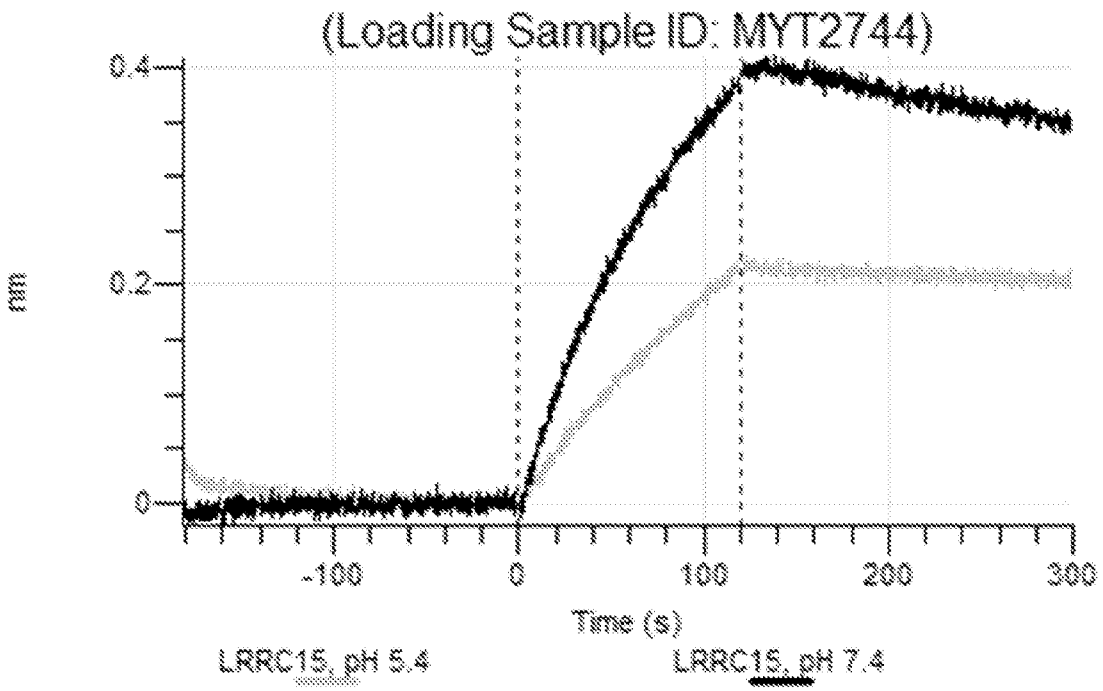

(Loading Sample ID: MYT2744)
0.4
0.2
0
nm
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5S

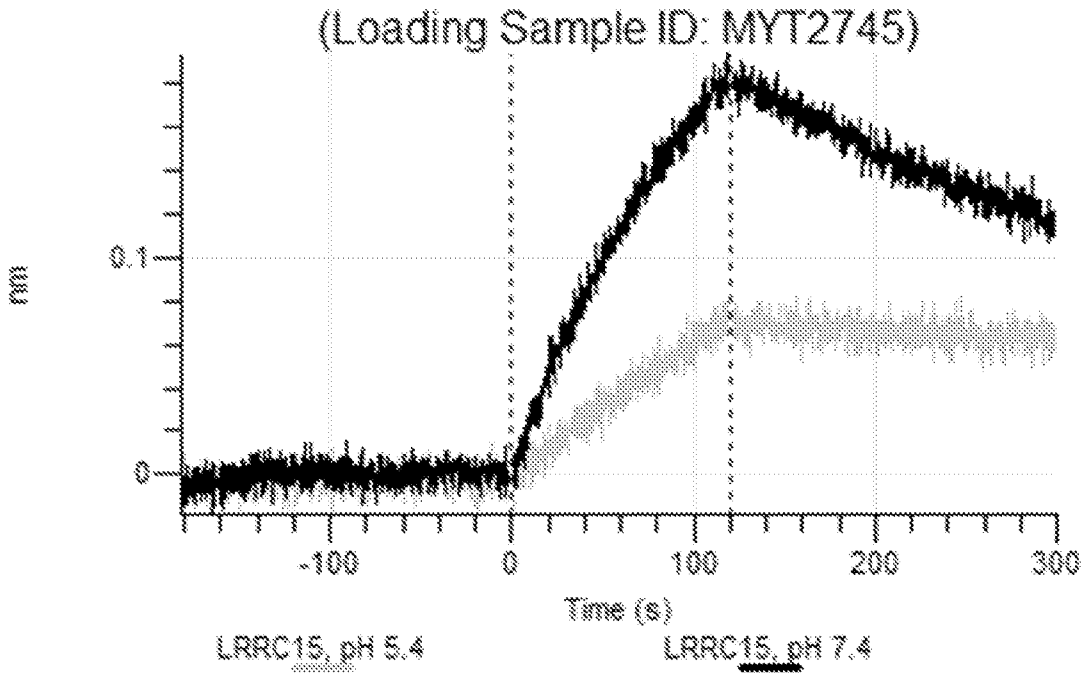

(Loading Sample ID: MYT2745)
nm
0.1
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5T

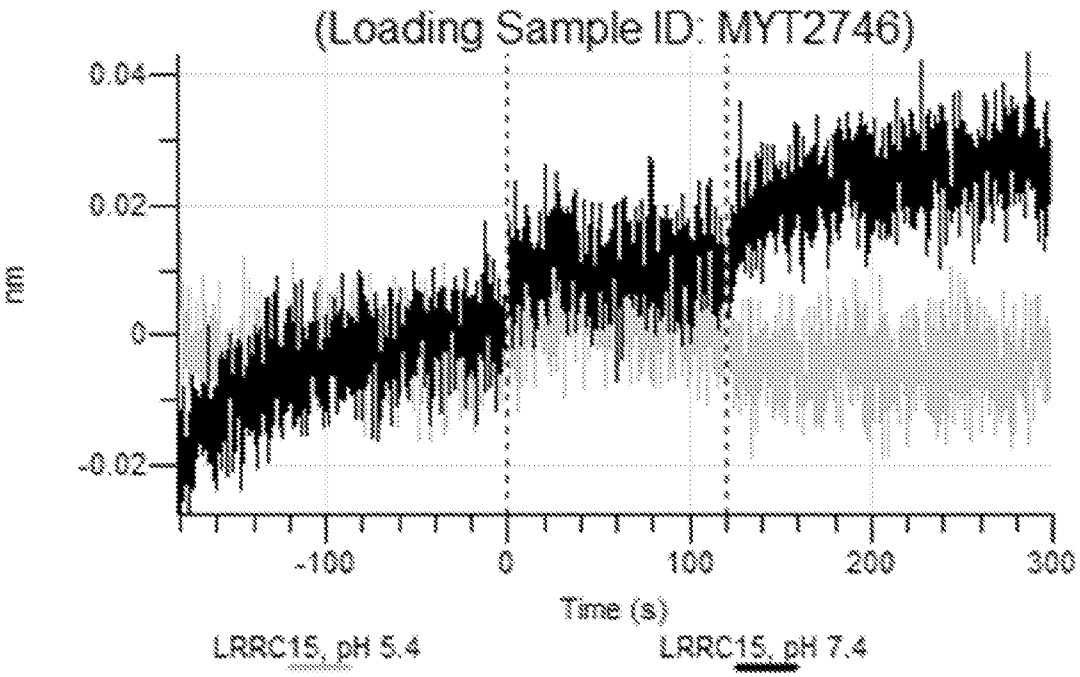

(Loading Sample ID: MYT2746)
0.04
0.02
0
-0.02
nm
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5U

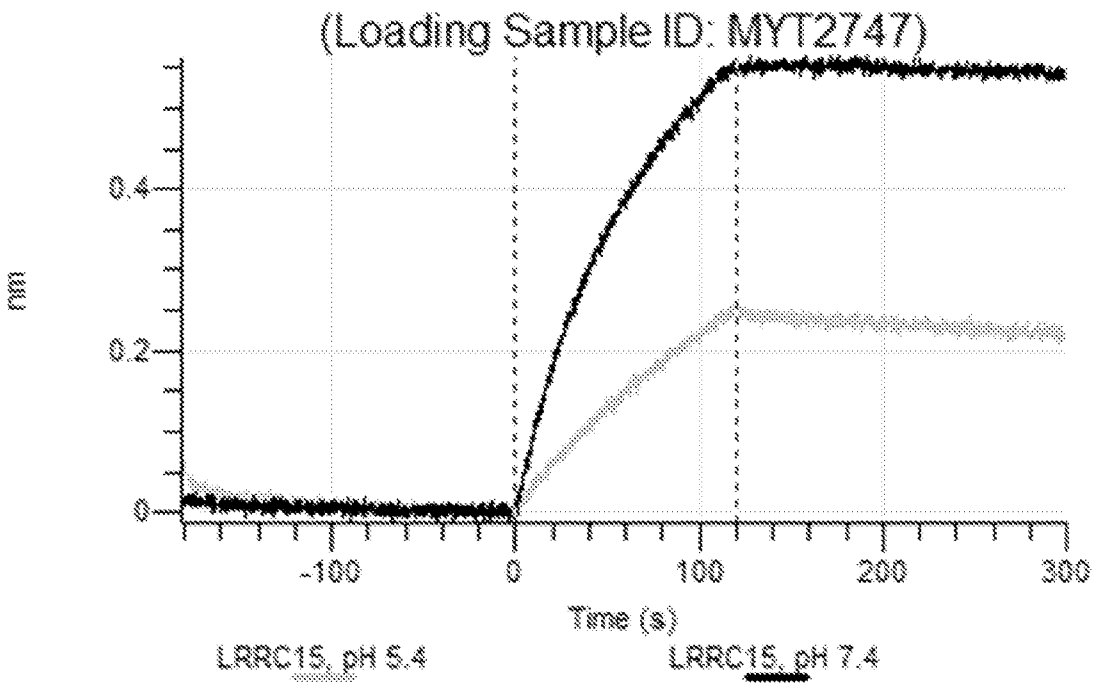

(Loading Sample ID: MYT2747)
nm
0.4
0.2
0
-100
0
100
200
300
Time (s)
LRRC15_pH 5.4
LRRC15_pH 7.4

FIG. 5V

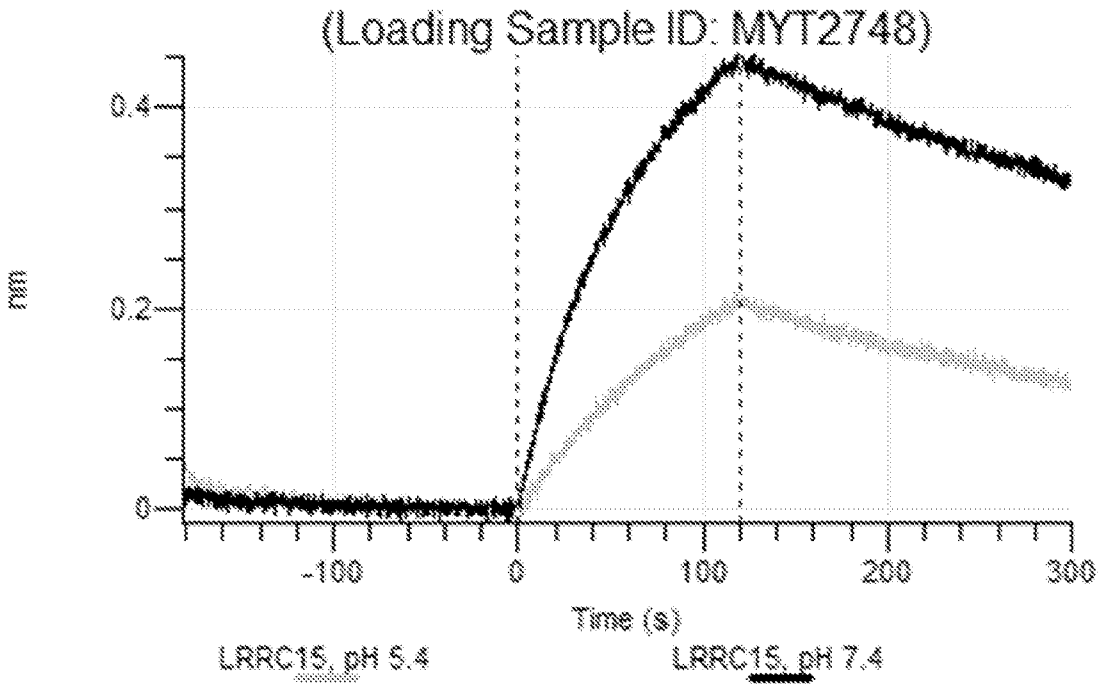

(Loading Sample ID: MYT2748)
nm
0.4
0.2
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5W

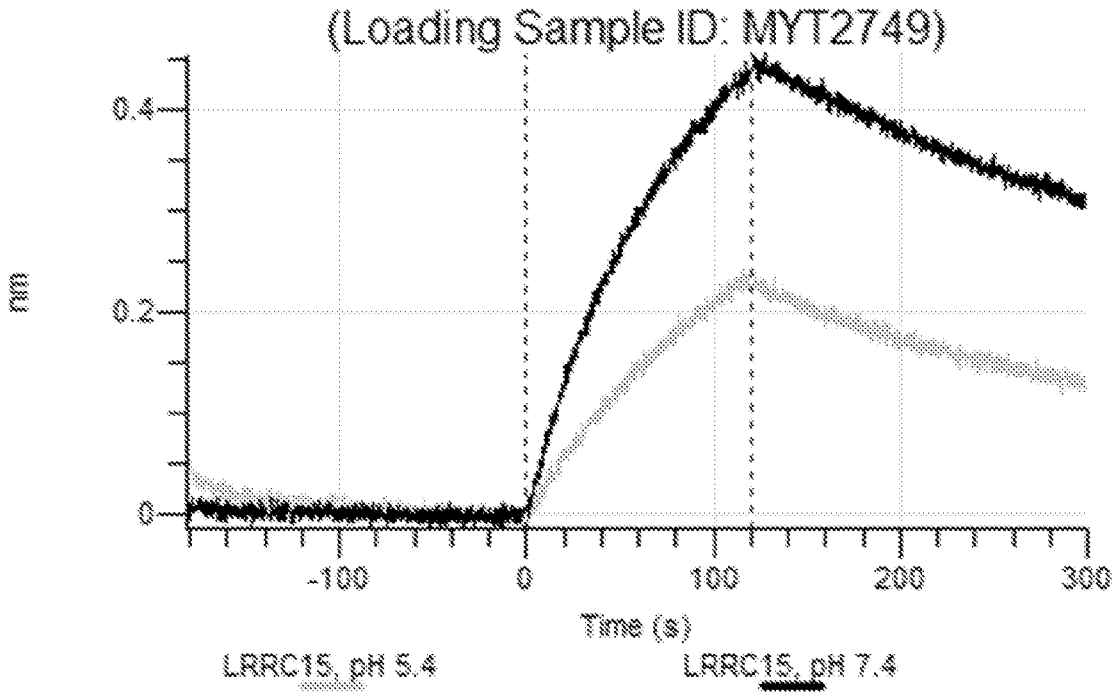

(Loading Sample ID: MYT2749)
nm
0.4
0.2
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 5X

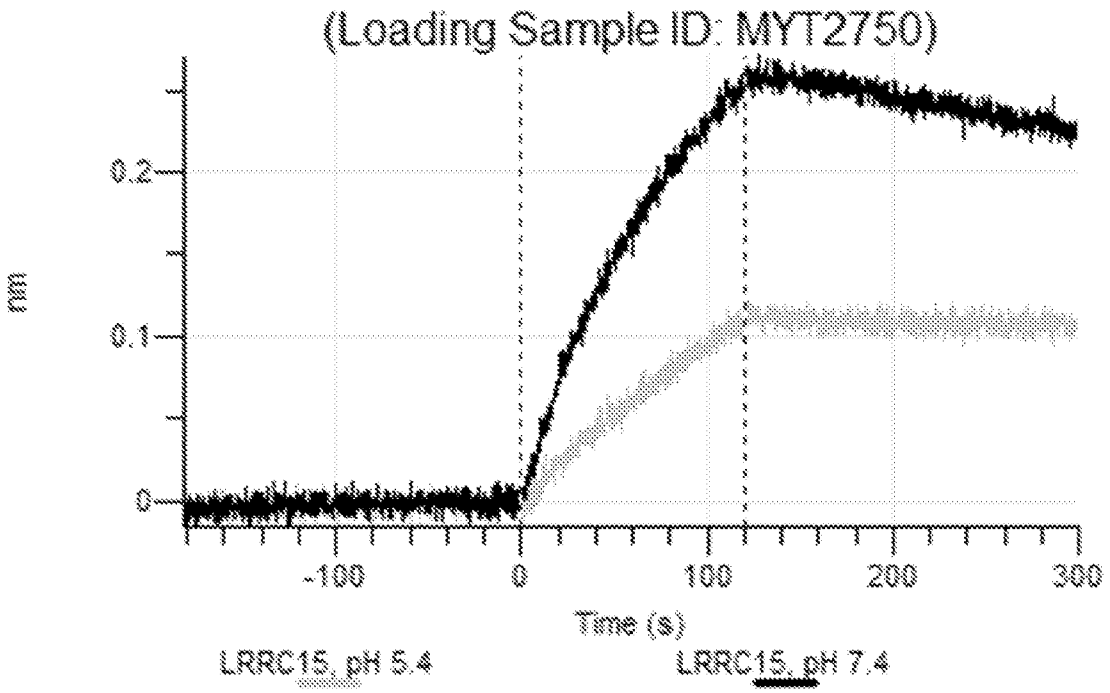

(Loading Sample ID: MYT2750)
(nm)
0.2
0.1
0
-100
0
100
200
300
Time (s)
LRRC15_pH 5.4
LRRC15_pH 7.4

FIG. 5Y

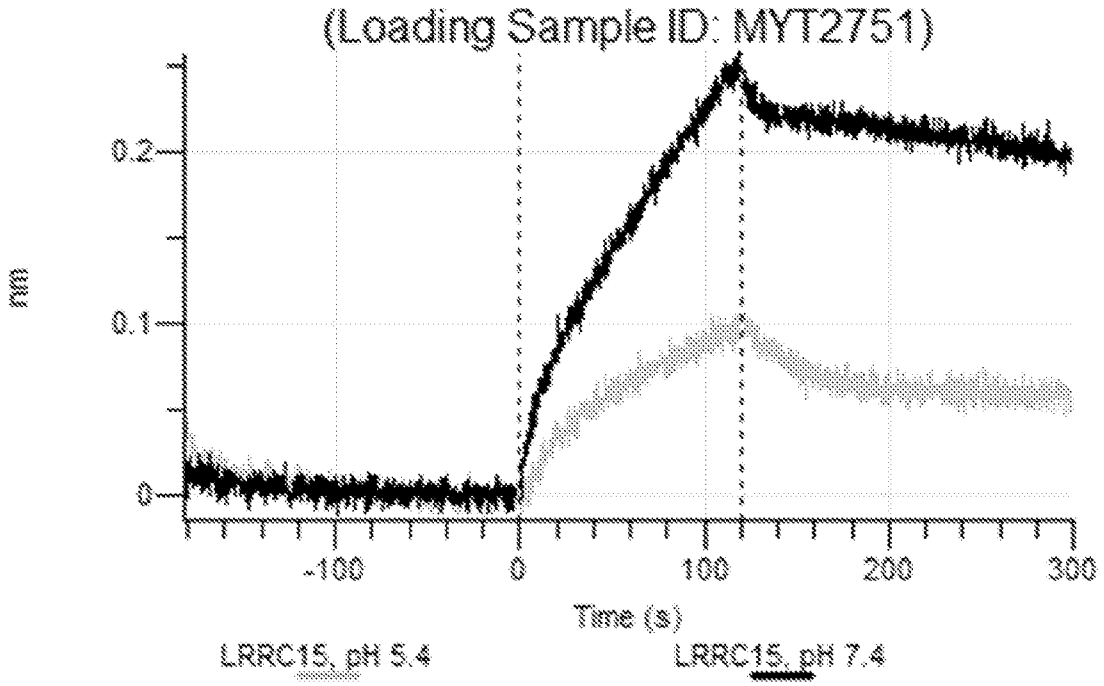

(Loading Sample ID: MYT2751)
nm
0.2
0.1
0
-100
0
100
200
300
Time (s)
LRRC15_pH 5.4
LRRC15_pH 7.4

FIG. 5Z

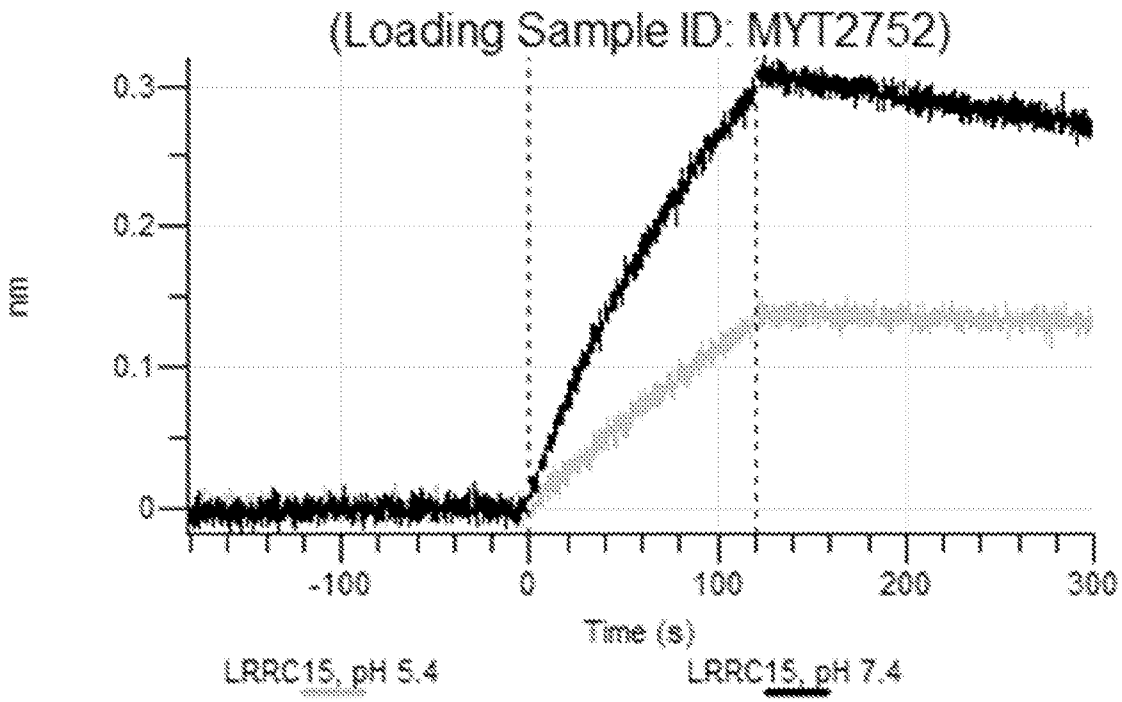

(Loading Sample ID: MYT2752)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
Time (s)
LRRC15_pH 5.4
LRRC15_pH 7.4

FIG. 5AA

	Heavy	Light	CDRH1	CDRH2	CDRH3	CDRL1	CDRL2	CDRL3
MYT0963 (samrotamab)	1	2	3	4	5	6	7	8
MYT2726	1	53						
MYT2727	1	54						
MYT2728	1	55						
MYT2729	1	56						
MYT2730	1	57						
MYT2731	1	58						
MYT2732	1	59						
MYT2733	1	60						
MYT2734	1	61						
MYT2735	1	62						
MYT2736	1	63						
MYT2737	1	64						
MYT2738	1	65						
MYT2739	1	66						
MYT2740	1	67						
MYT2741	1	68						
MYT2742	1	69						
MYT2743	1	70						
MYT2744	1	71						
MYT2745	1	72						
MYT2746	1	73						
MYT2747	1	74						
MYT2748	1	75						
MYT2749	1	76						
MYT2750	1	77						
MYT2751	1	78						
MYT2752	1	79						

FIG. 6

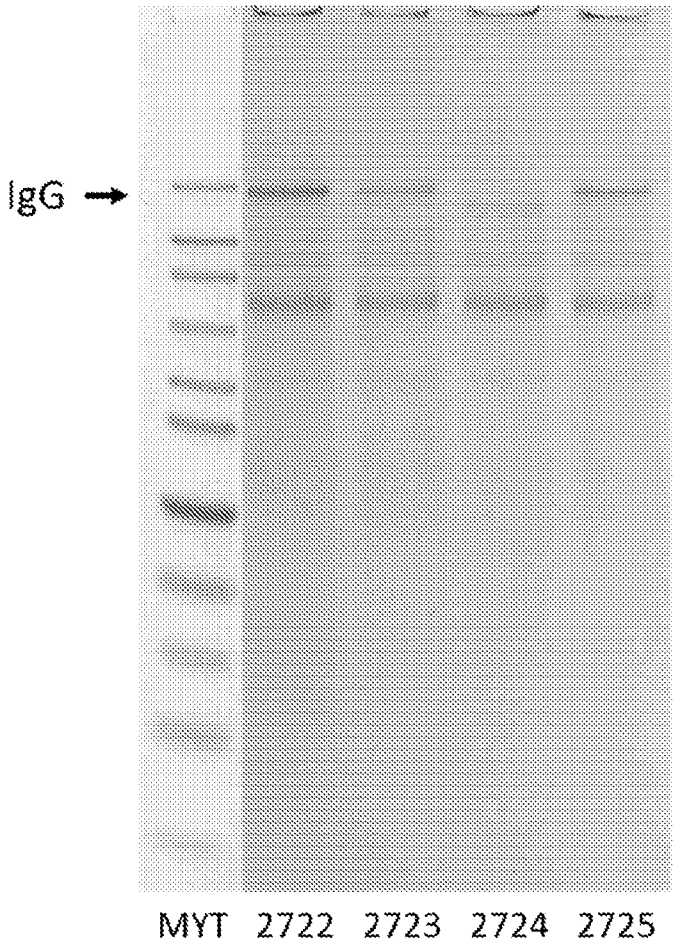


FIG. 7

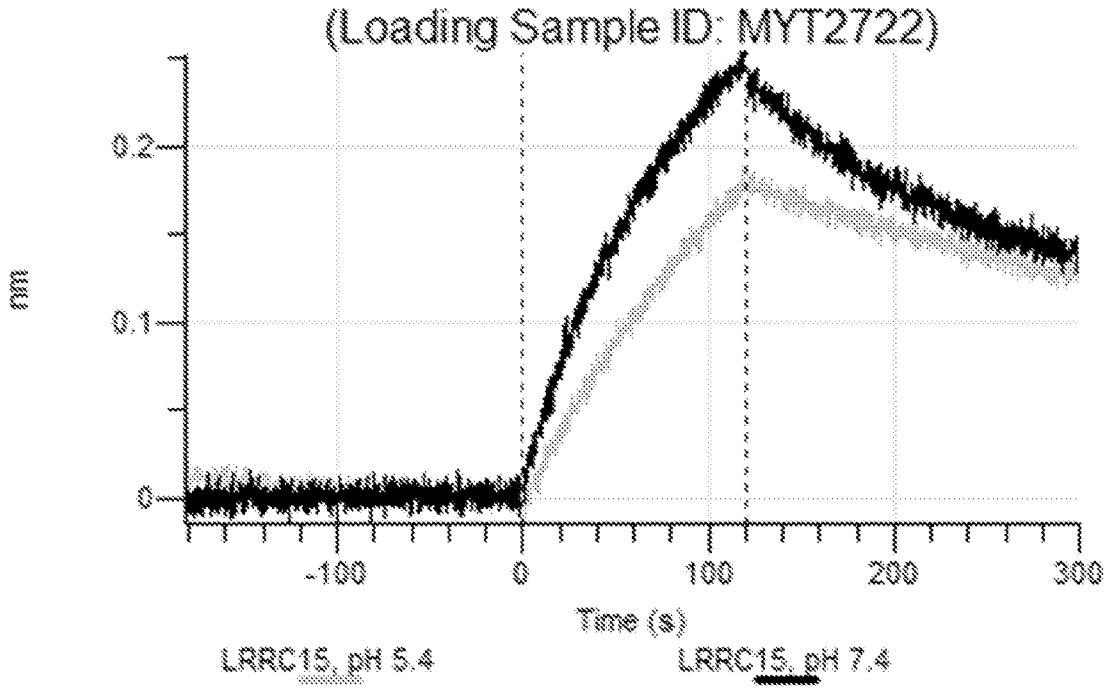

(Loading Sample ID: MYT2722)
nm
0.2
0.1
0
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 8A

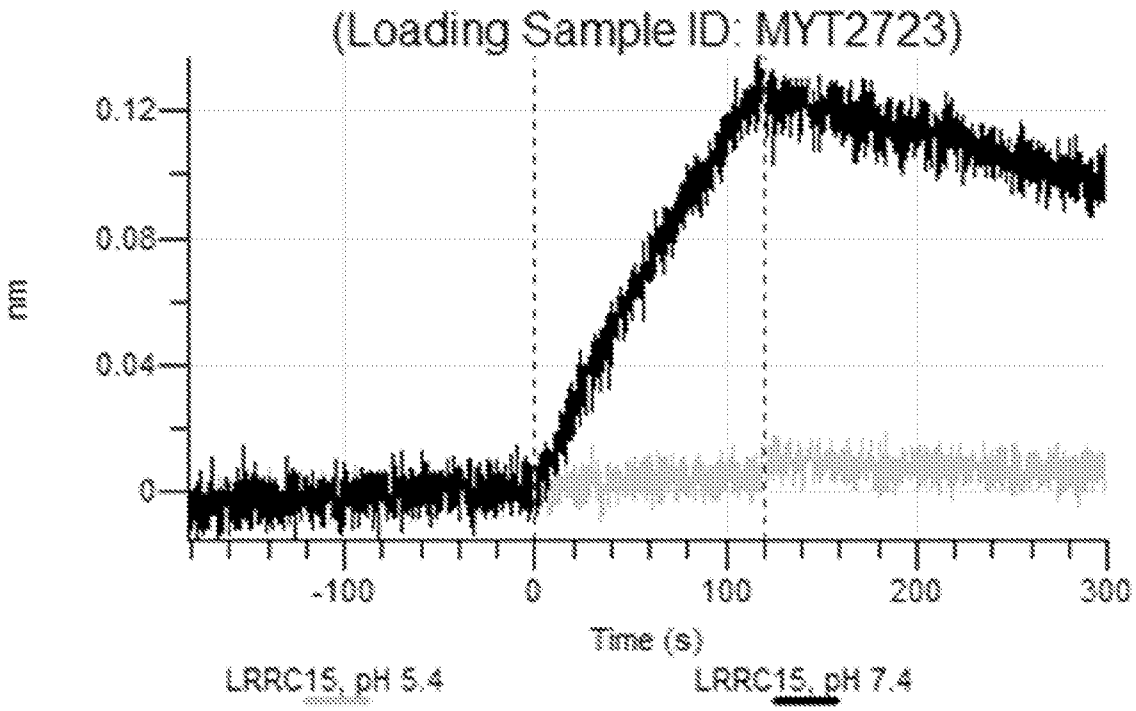

(Loading Sample ID: MYT2723)
0.12
0.08
0.04
0
nm
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 8B

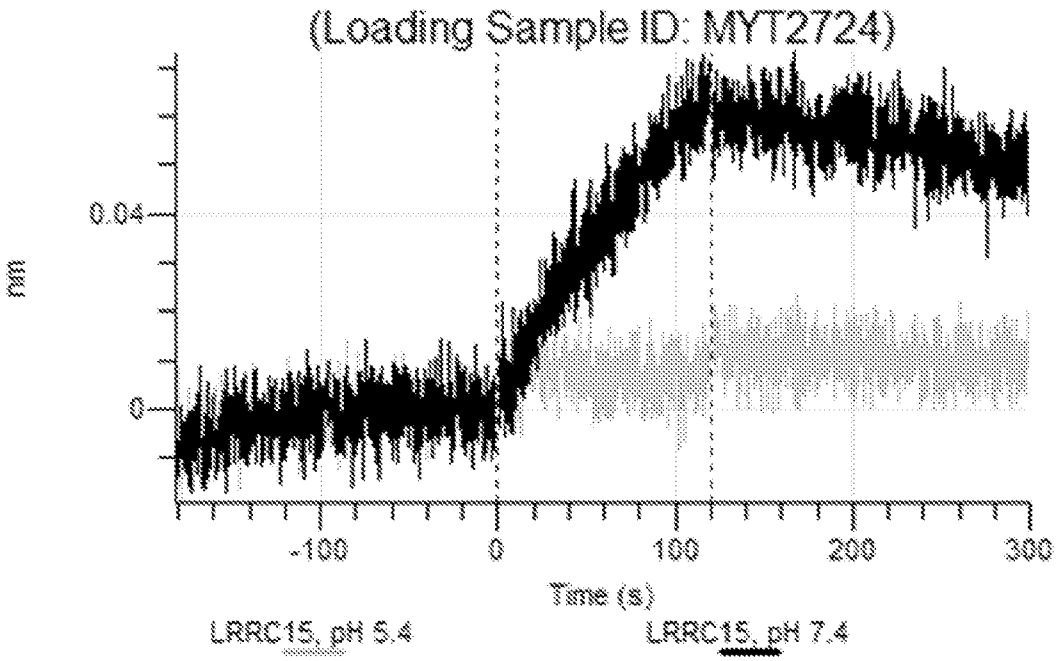

(Loading Sample ID: MYT2724)
0.04
0
nm
-100
0
100
200
300
Time (s)
LRRC15_pH 5.4
LRRC15_pH 7.4

FIG. 8C

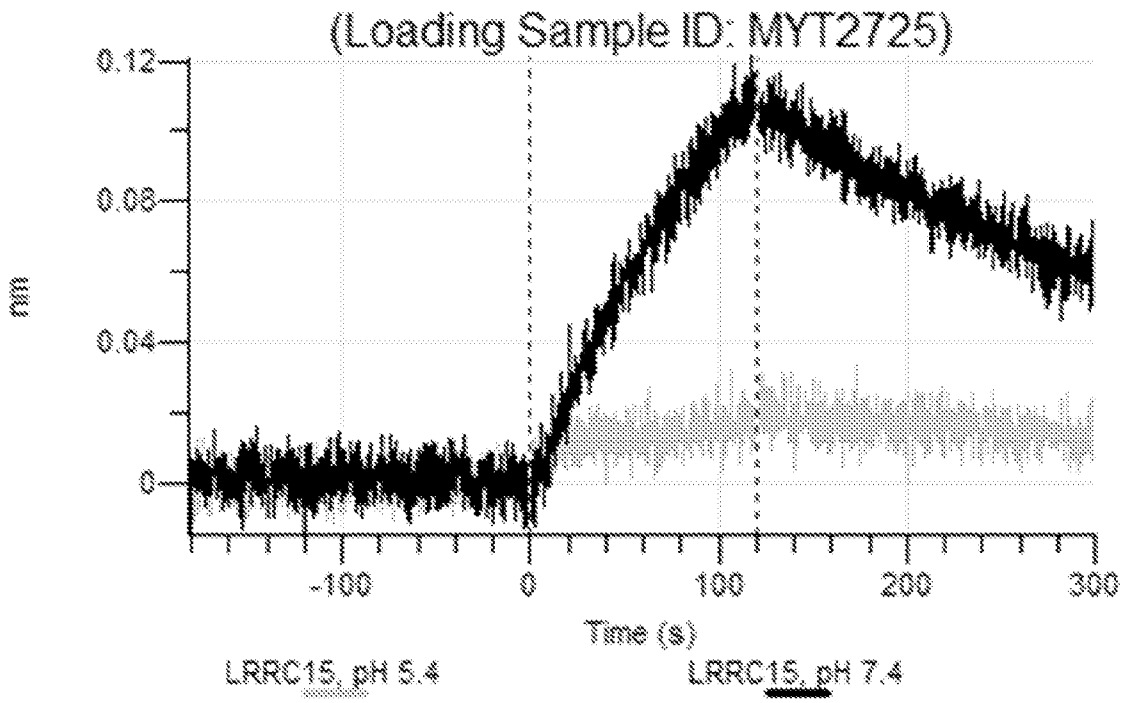
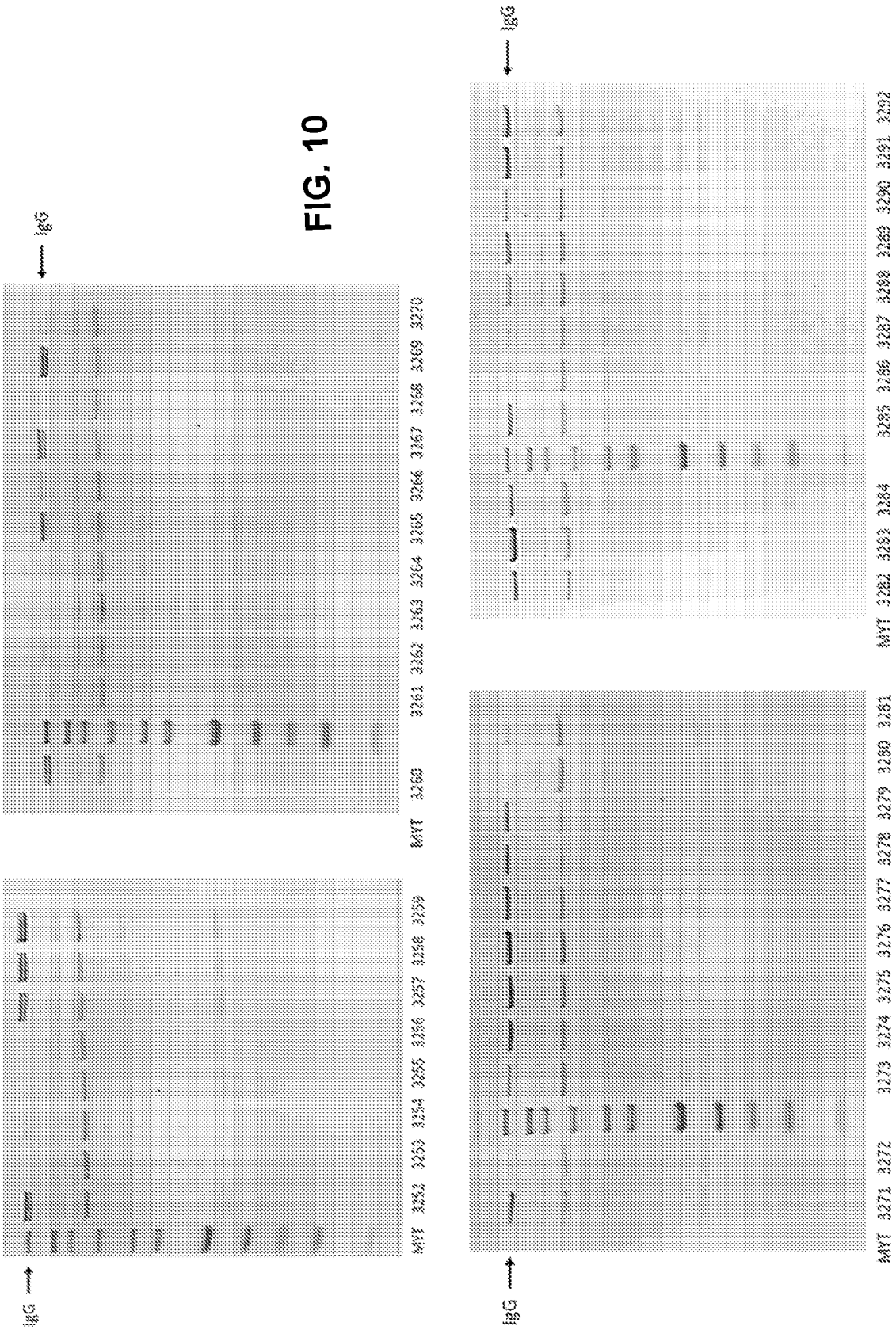

(Loading Sample ID: MYT2725)
0.12
0.08
0.04
0
nm
-100
0
100
200
300
Time (s)
LRRC15, pH 5.4
LRRC15, pH 7.4

FIG. 8D

	Heavy	Light	CDRH1	CDRH2	CDRH3	CDRL1	CDRL2	CDRL3
MYT0963 (samrotamab)	1	2	3	4	5	6	7	8
MYT2722	80	2						
MYT2723	81	2						
MYT2724	82	2						
MYT2725	83	2						

FIG. 9

FIG. 10


IgG
MYT 3252 3253 3254 3255 3256 3257 3258 3259
IgG
MYT 3260 3261 3262 3263 3264 3265 3266 3267 3268 3269 3270
IgG
MYT 3271 3272 3273 3274 3275 3276 3277 3278 3279 3280 3281
IgG
MYT 3282 3283 3284 3285 3286 3287 3288 3289 3290 3291 3292

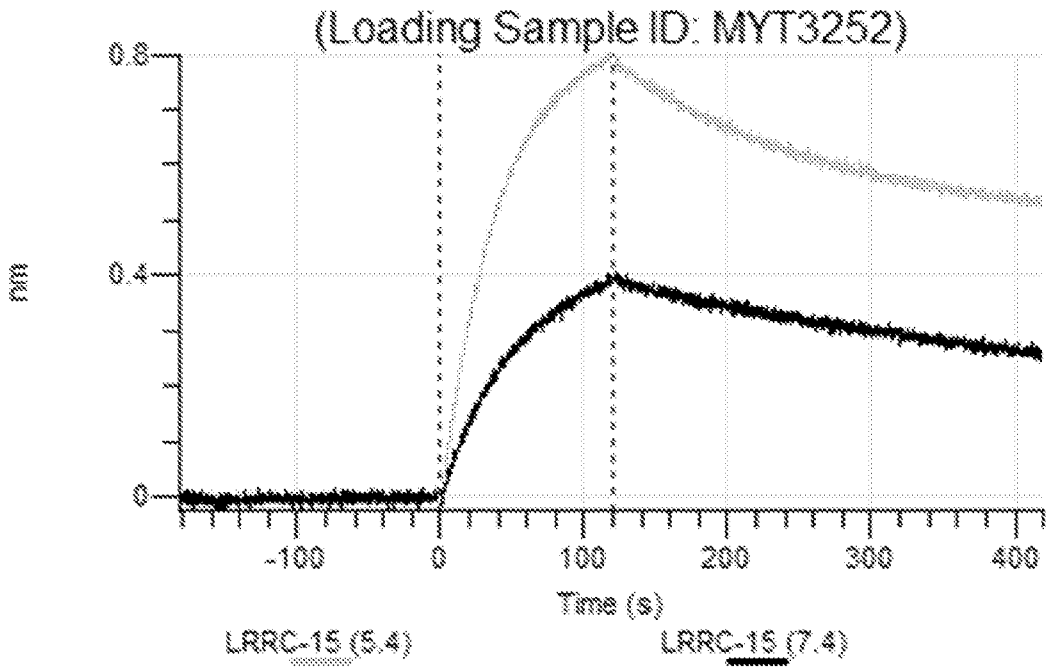

(Loading Sample ID: MYT3252)
0.8
0.4
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11A

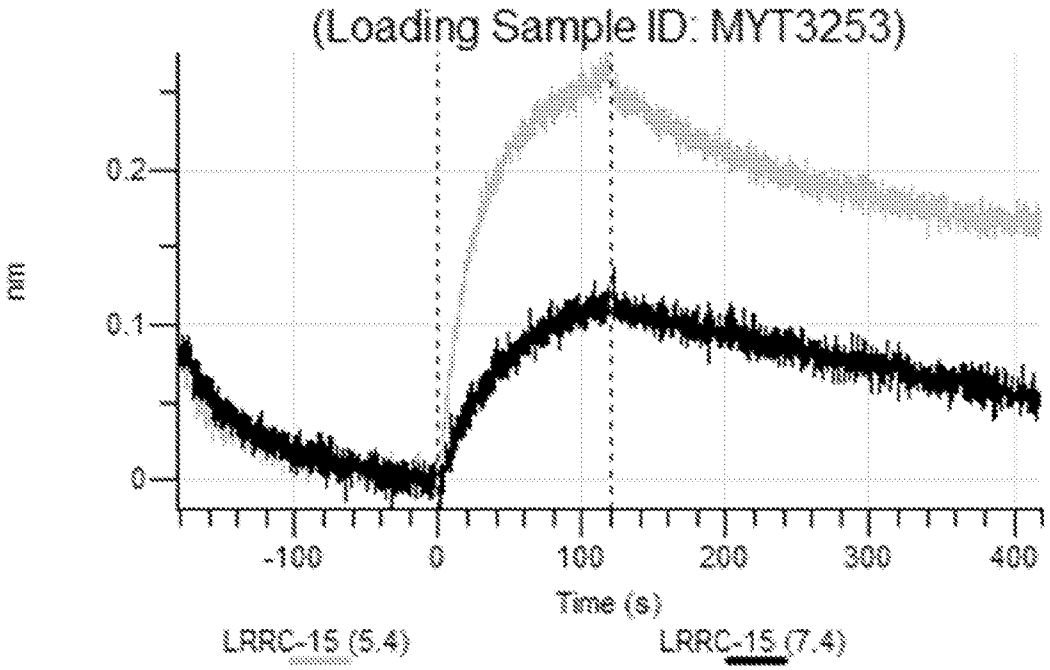

(Loading Sample ID: MYT3253)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11B

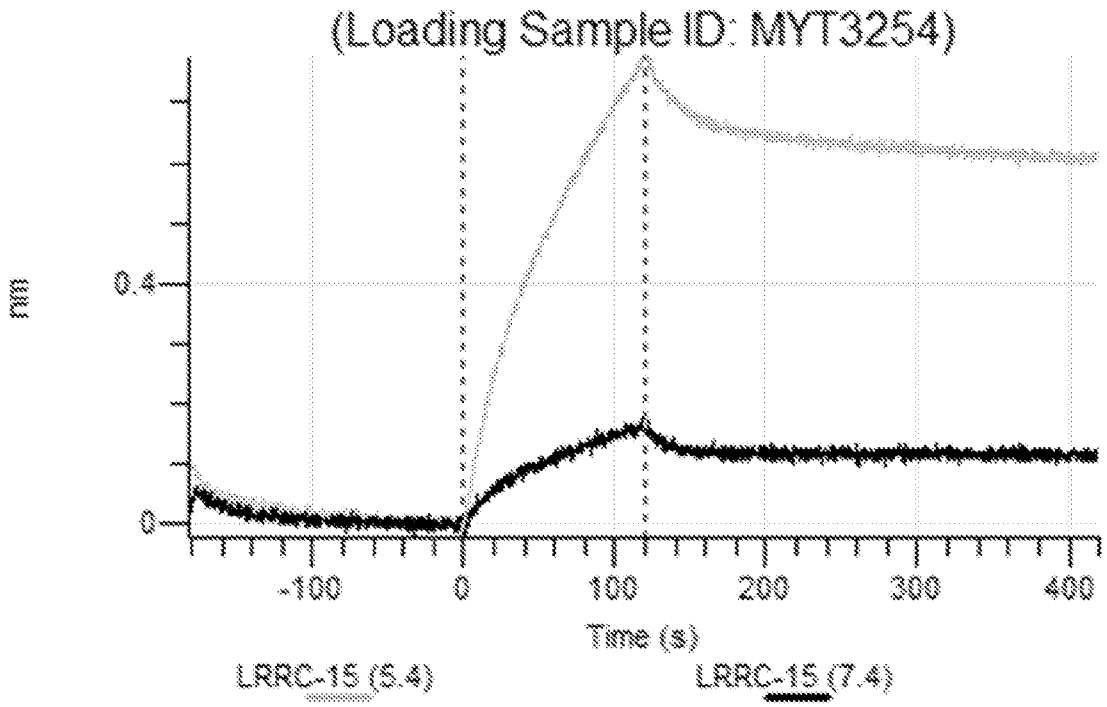

(Loading Sample ID: MYT3254)
nm
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11C

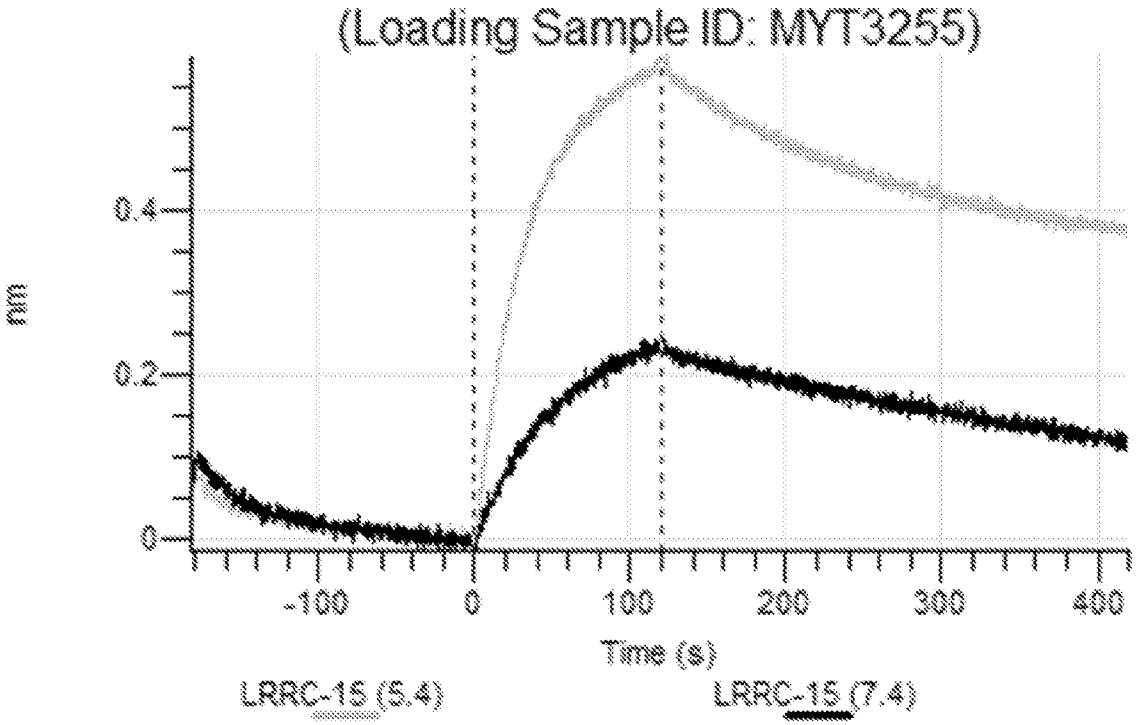

(Loading Sample ID: MYT3255)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11D

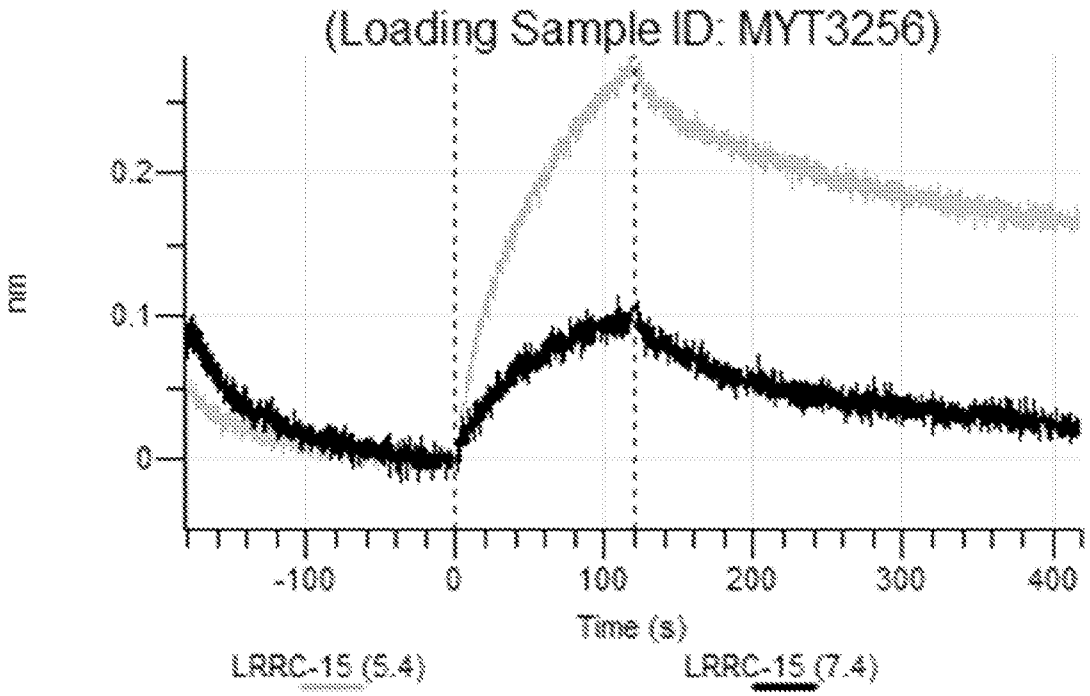

(Loading Sample ID: MYT3256)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11E

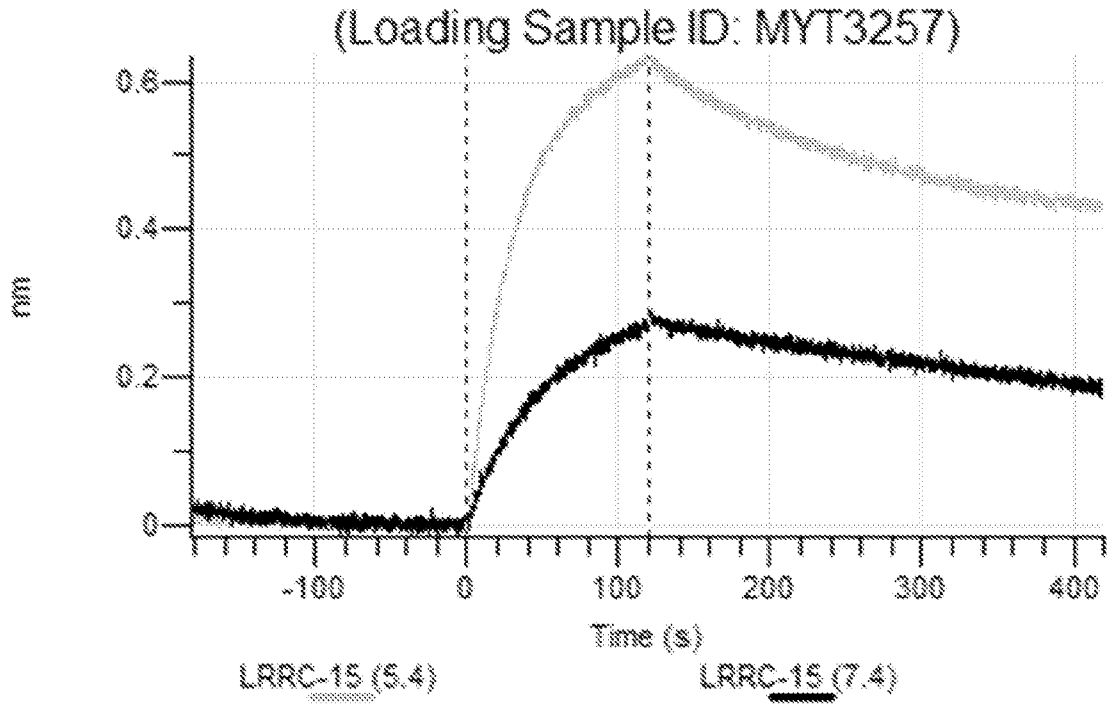

(Loading Sample ID: MYT3257)
nm
0.6
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11F

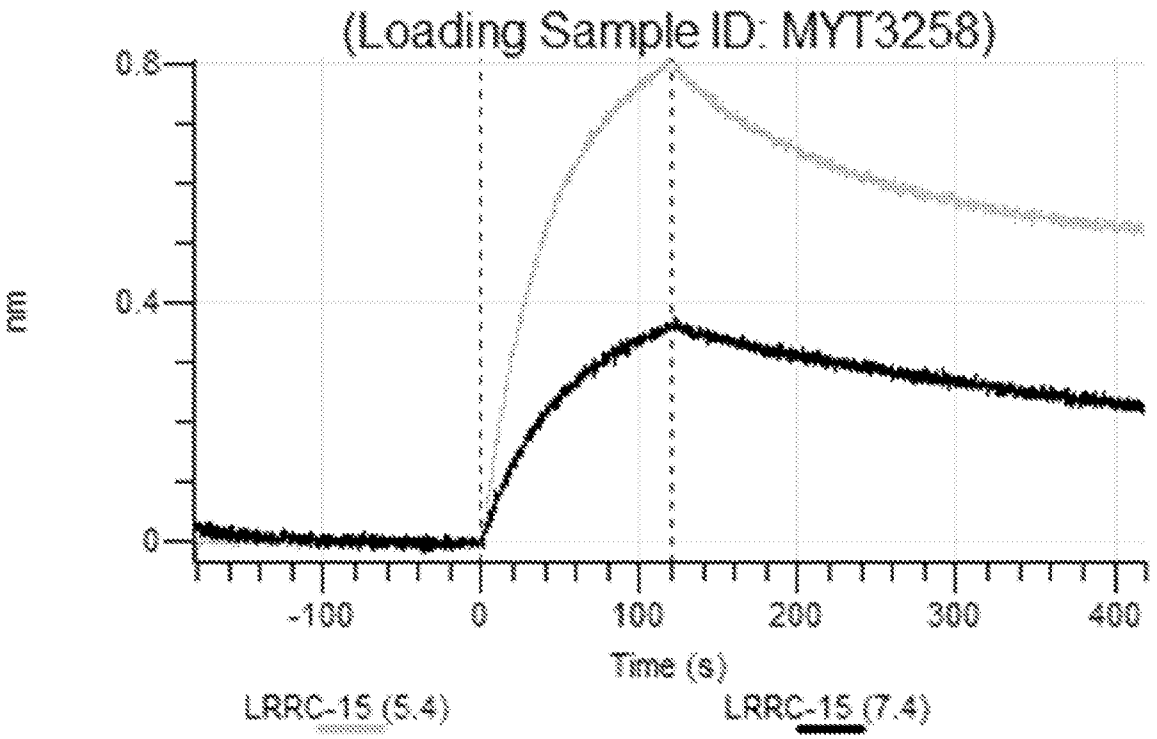

(Loading Sample ID: MYT3258)
0.8
0.4
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11G

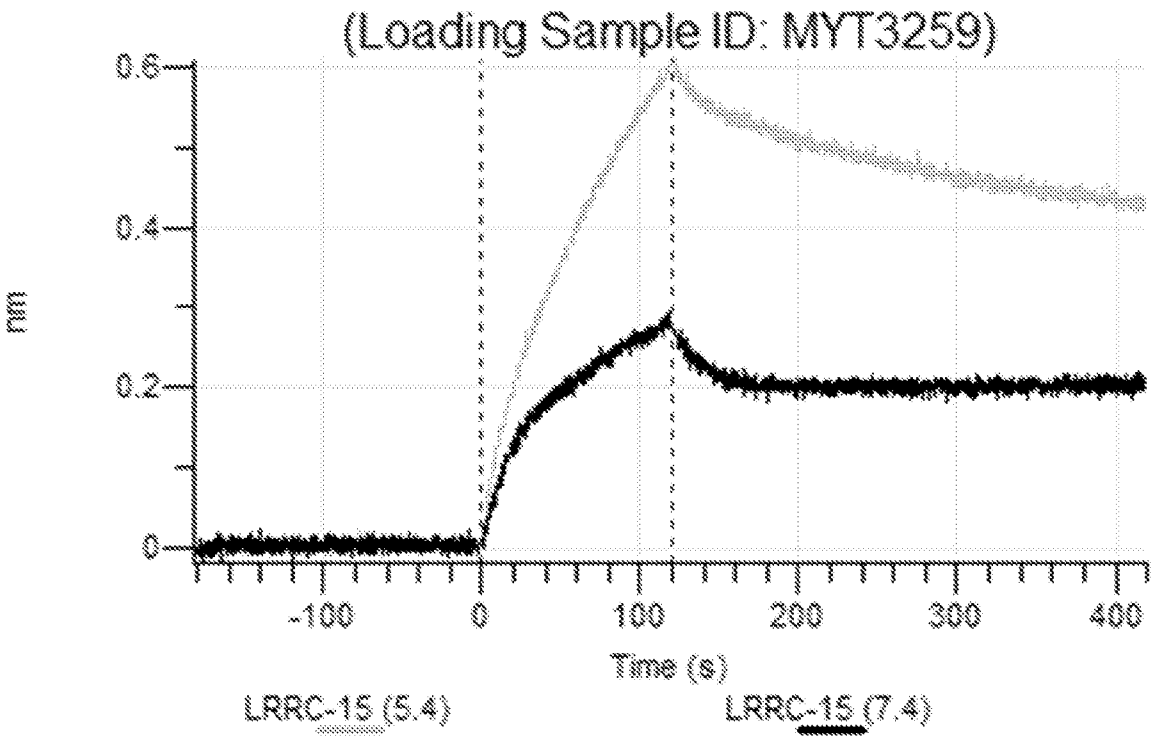

(Loading Sample ID: MYT3259)
0.6
0.4
0.2
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11H

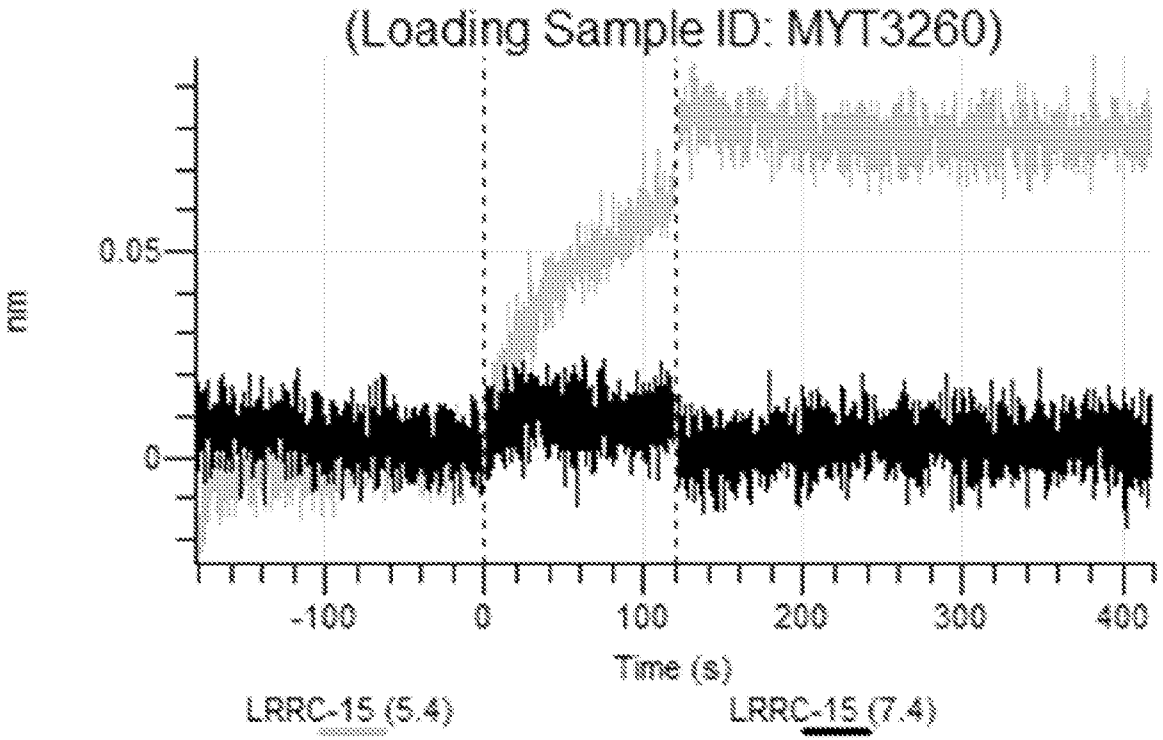

(Loading Sample ID: MYT3260)
nm
0.05
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11I

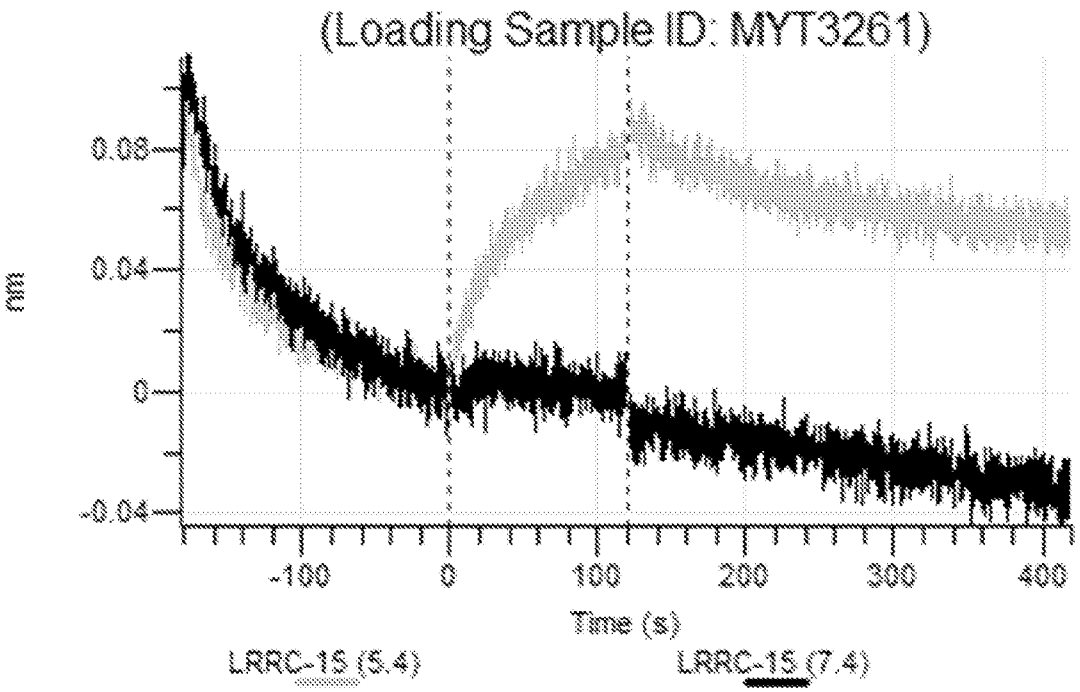

(Loading Sample ID: MYT3261)
nm
0.08
0.04
0
-0.04
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11J

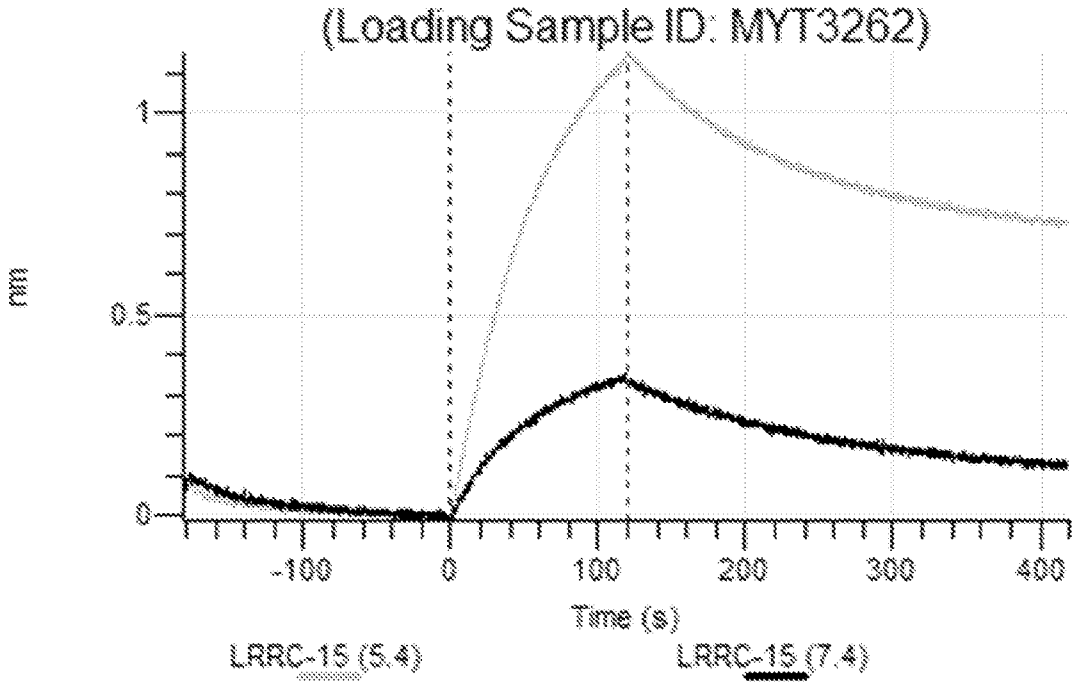

(Loading Sample ID: MYT3262)
nm
1
0.5
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11K

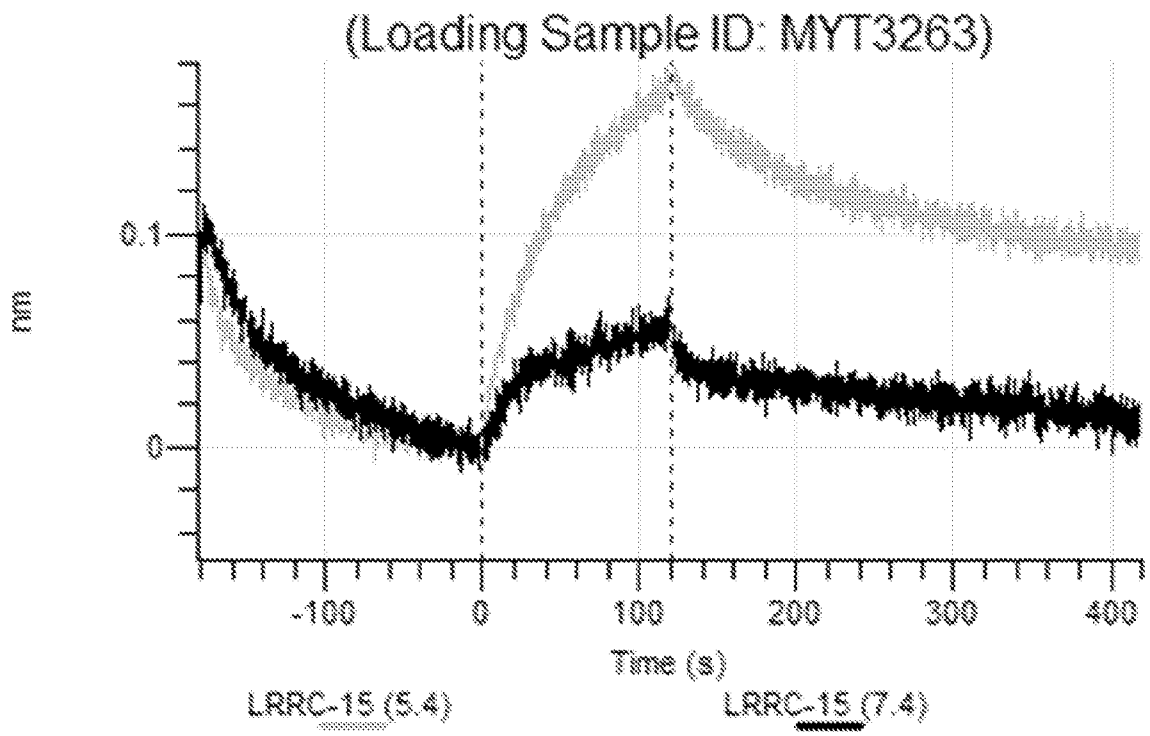

(Loading Sample ID: MYT3263)
nm
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11L

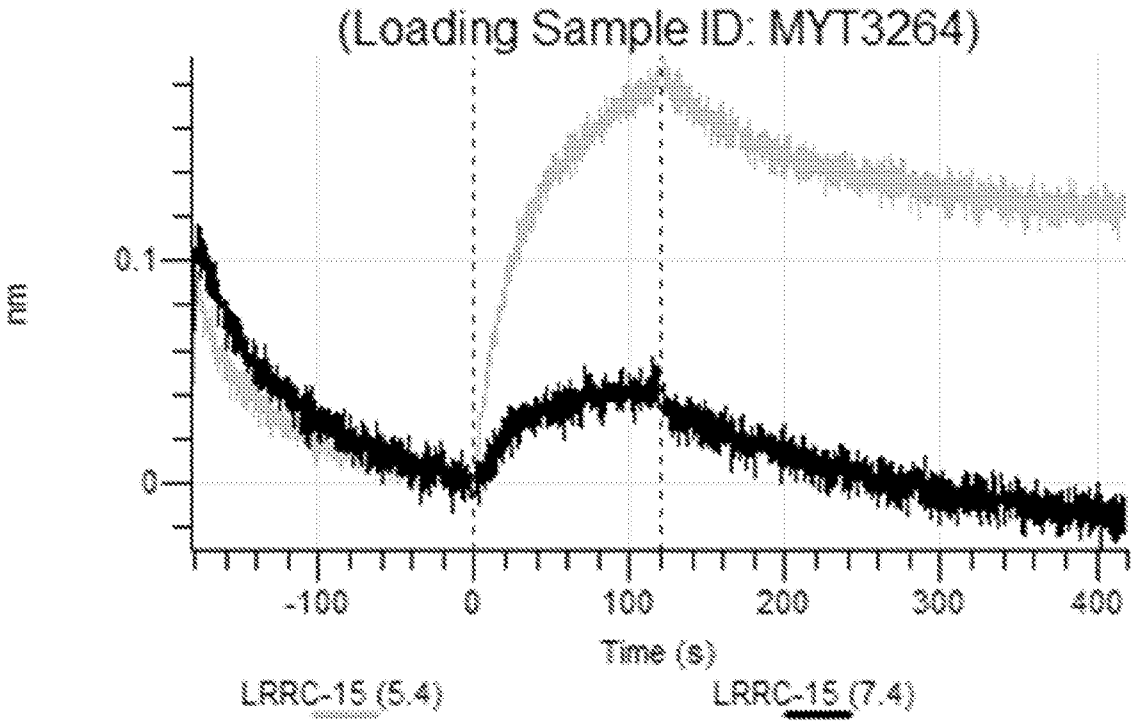

(Loading Sample ID: MYT3264)
nm
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11M

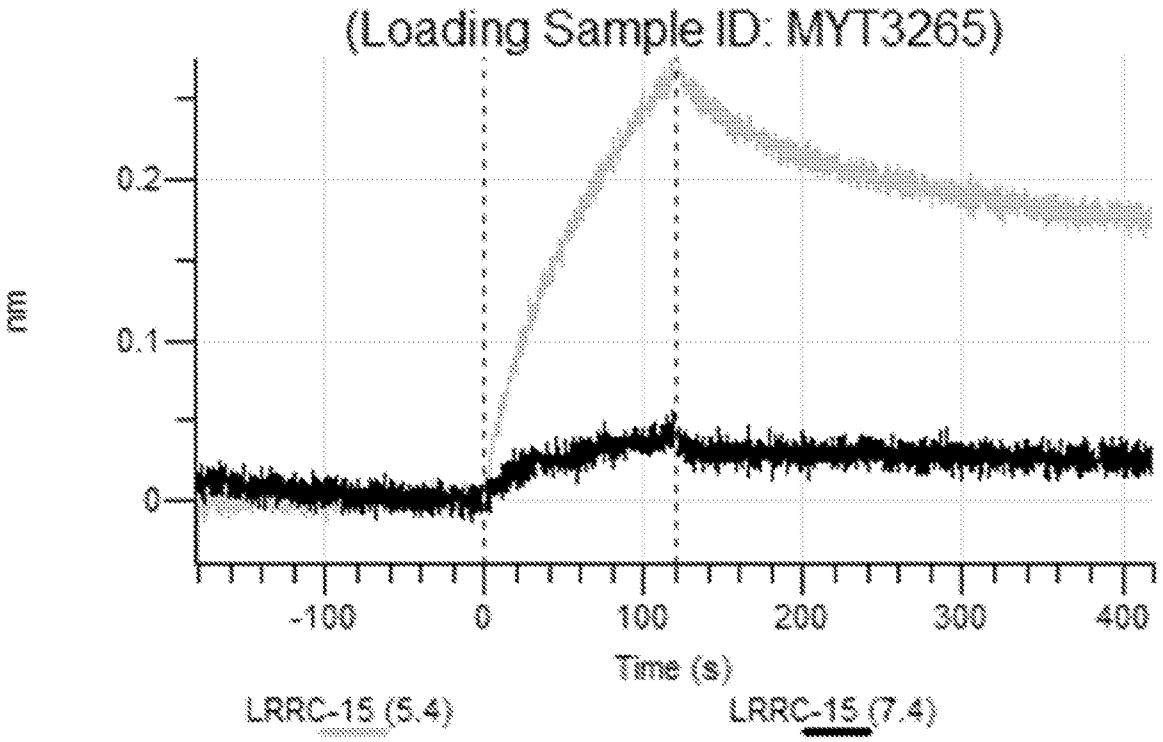

(Loading Sample ID: MYT3265)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11N

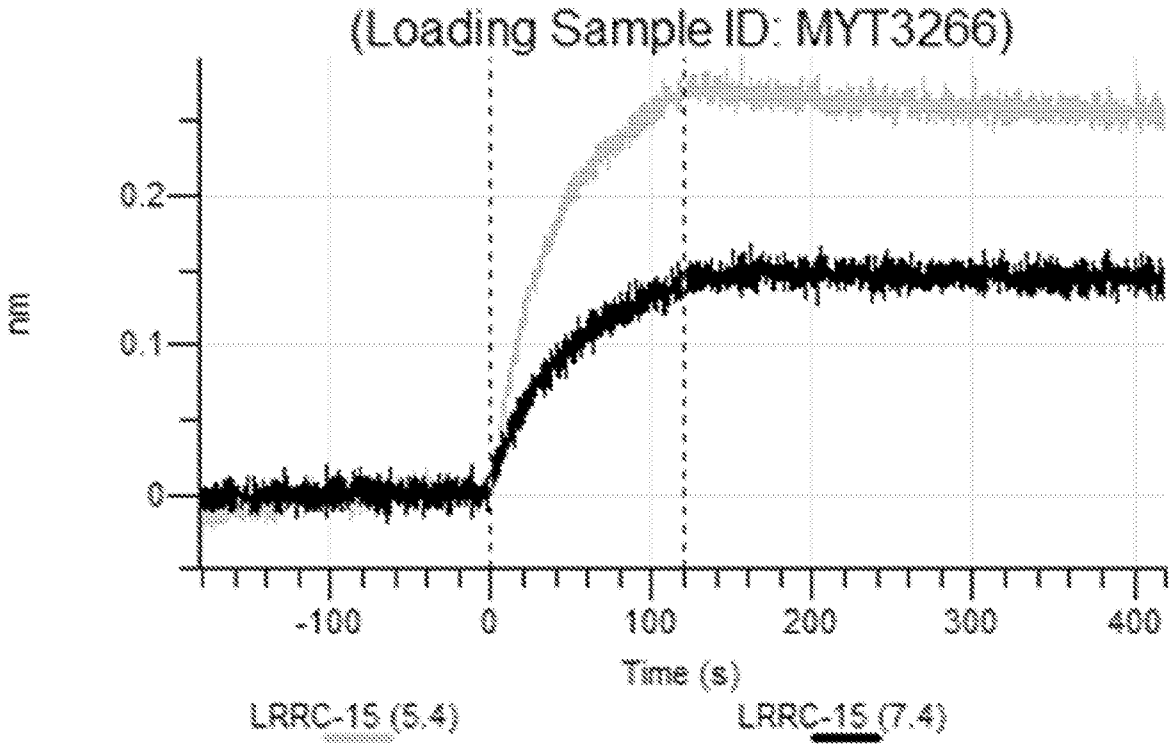

(Loading Sample ID: MYT3266)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11O

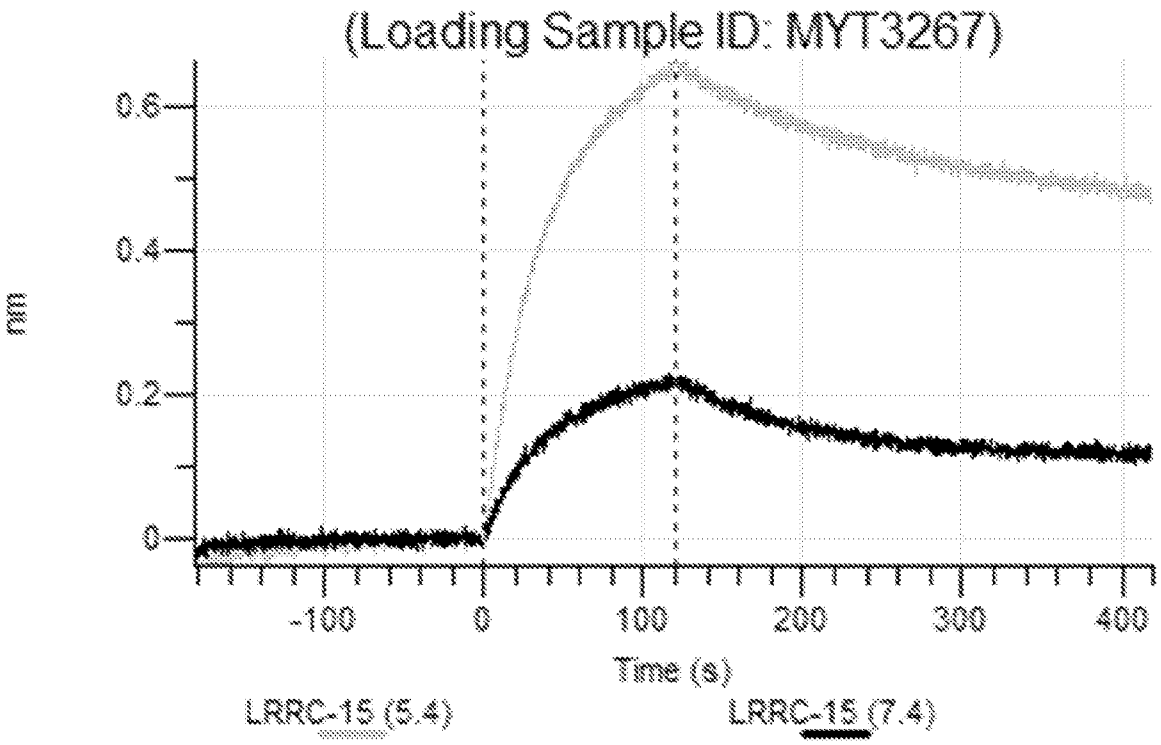

(Loading Sample ID: MYT3267)
0.6
0.4
0.2
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11P

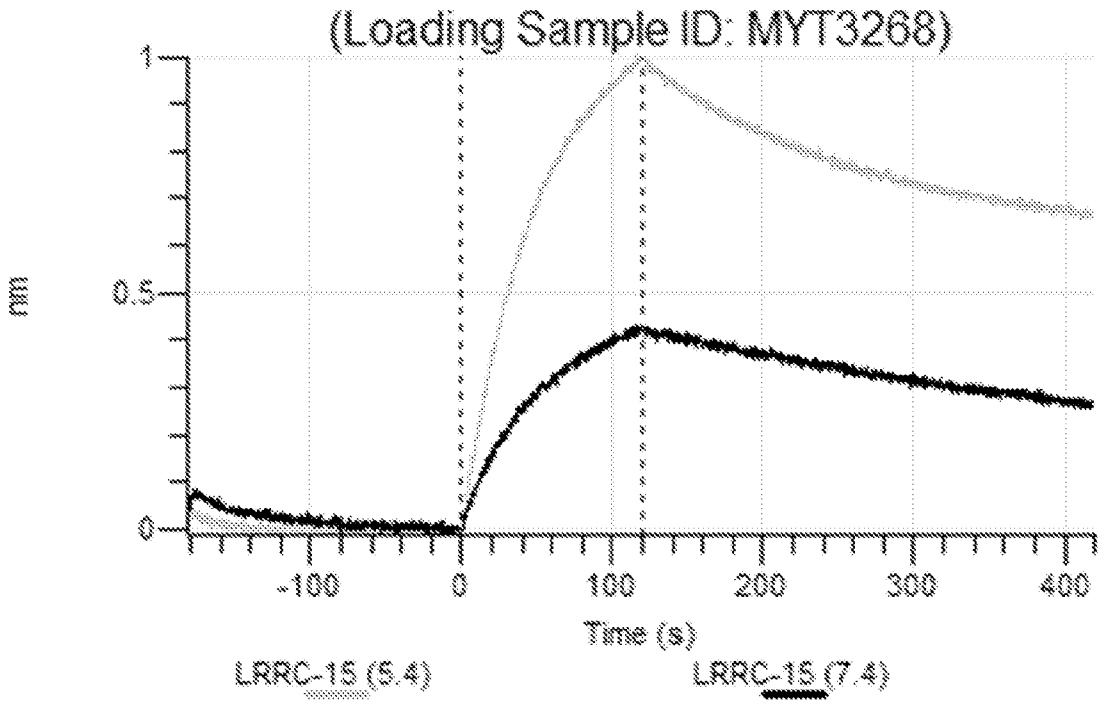

(Loading Sample ID: MYT3268)
nm
1
0.5
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11Q

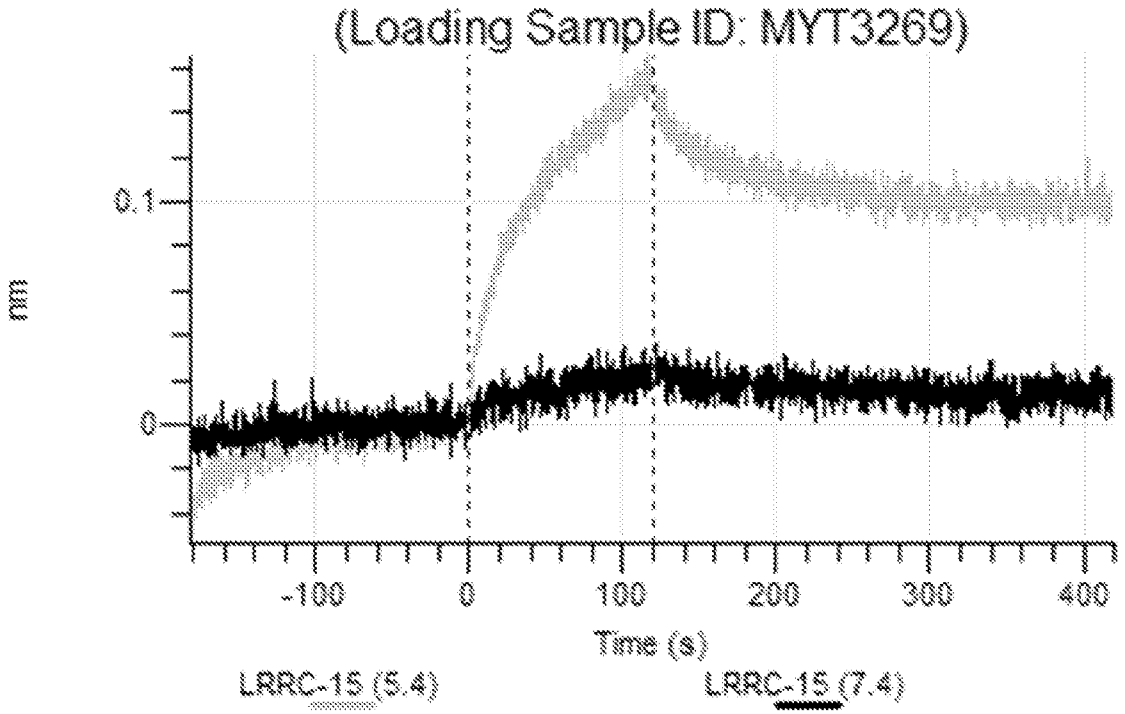

(Loading Sample ID: MYT3269)
nm
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11R

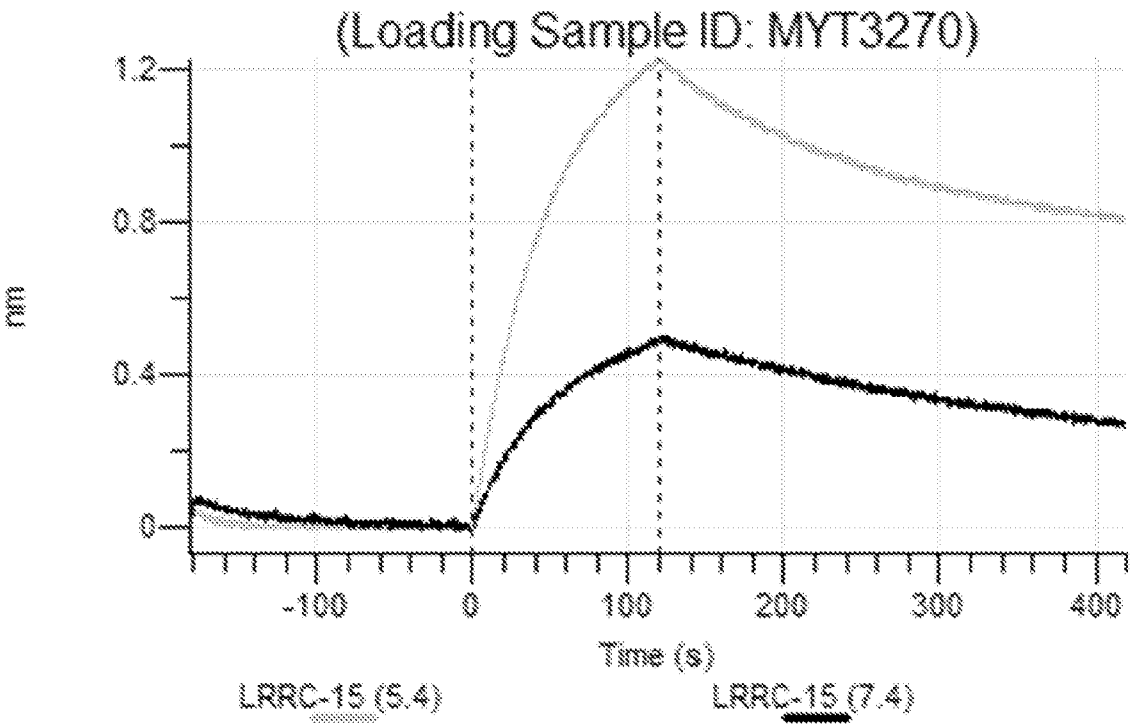

(Loading Sample ID: MYT3270)
1.2
0.8
0.4
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11S

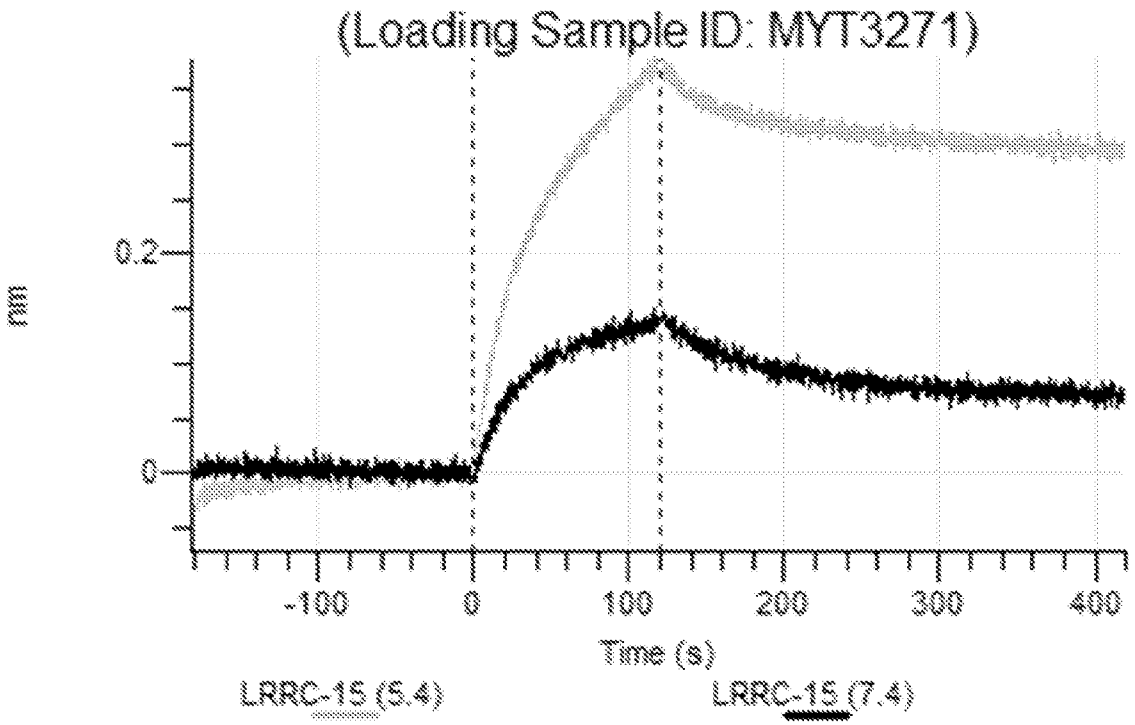

(Loading Sample ID: MYT3271)
nm
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11T

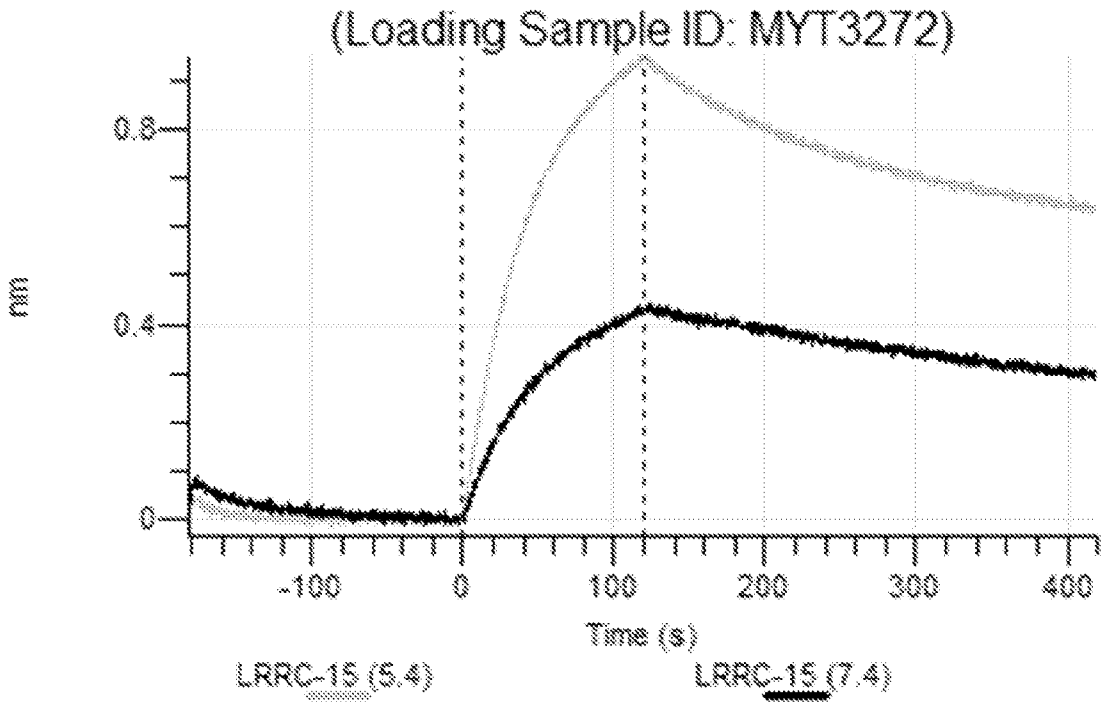

(Loading Sample ID: MYT3272)
nm
0.8
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11U

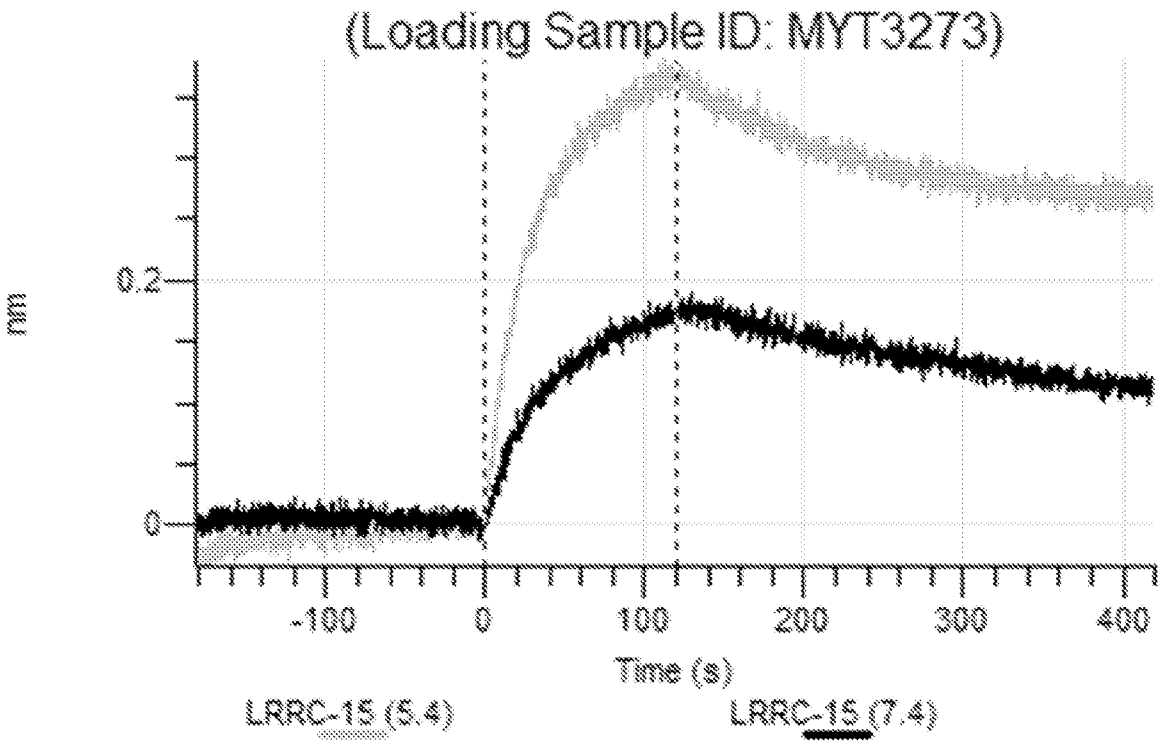

(Loading Sample ID: MYT3273)
nm
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11V

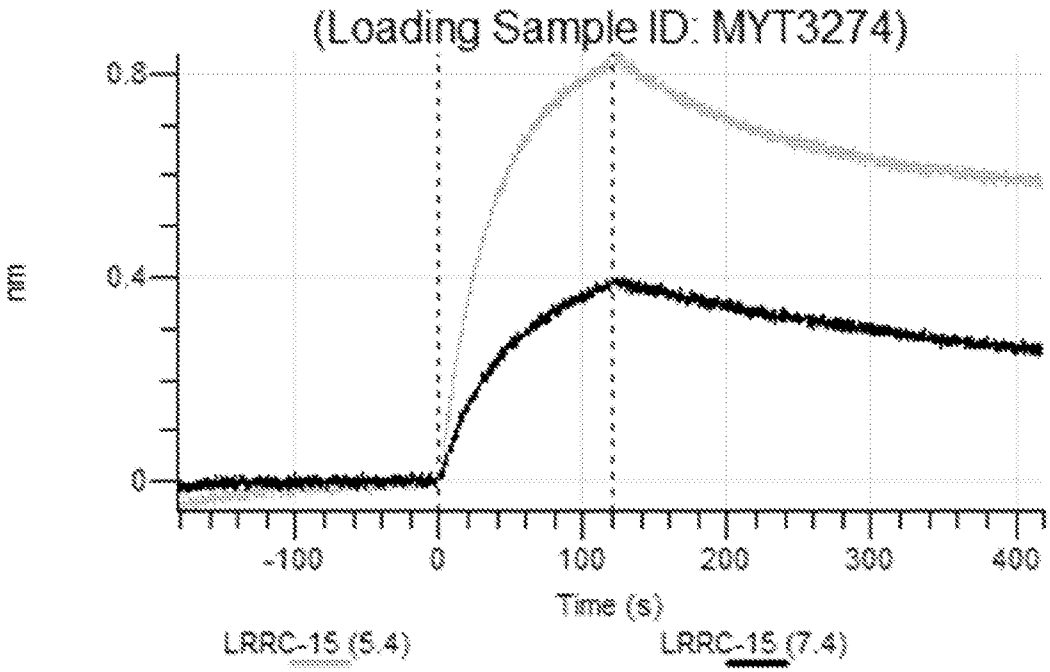

(Loading Sample ID: MYT3274)
0.8
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11W

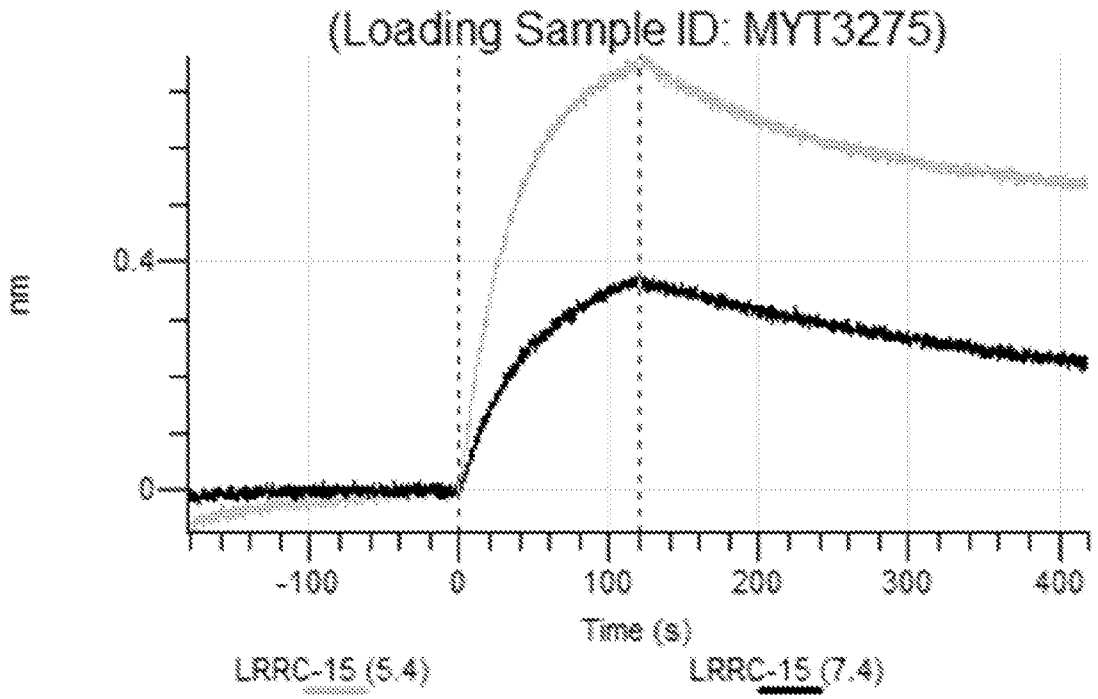

(Loading Sample ID: MYT3275)
nm
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11X

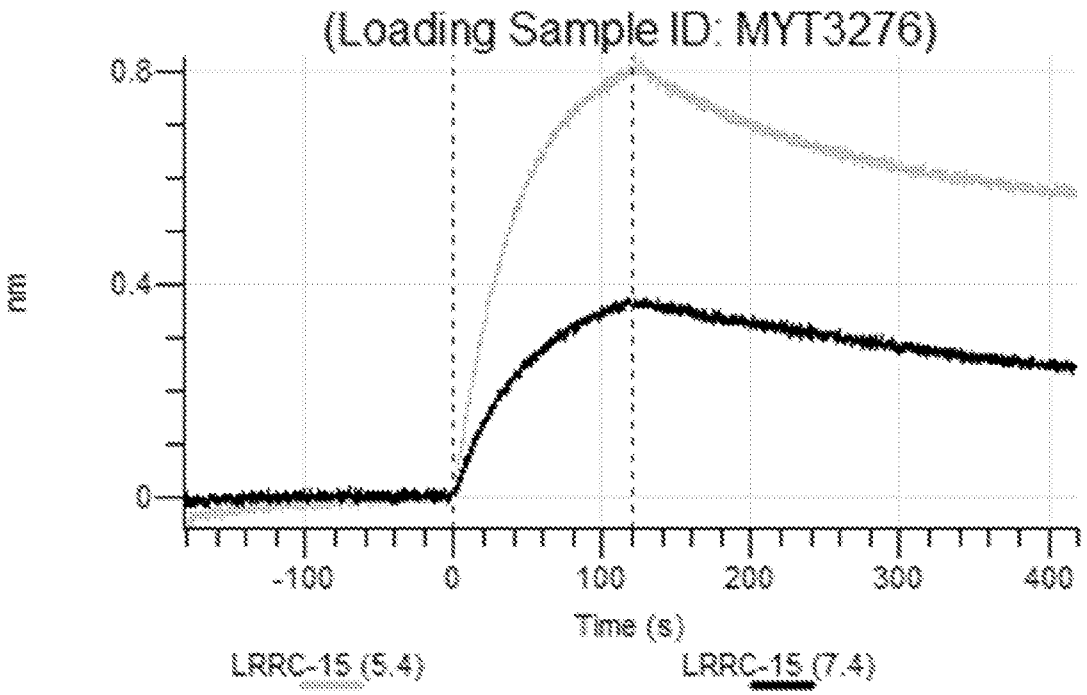

(Loading Sample ID: MYT3276)
0.8
0.4
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11Y

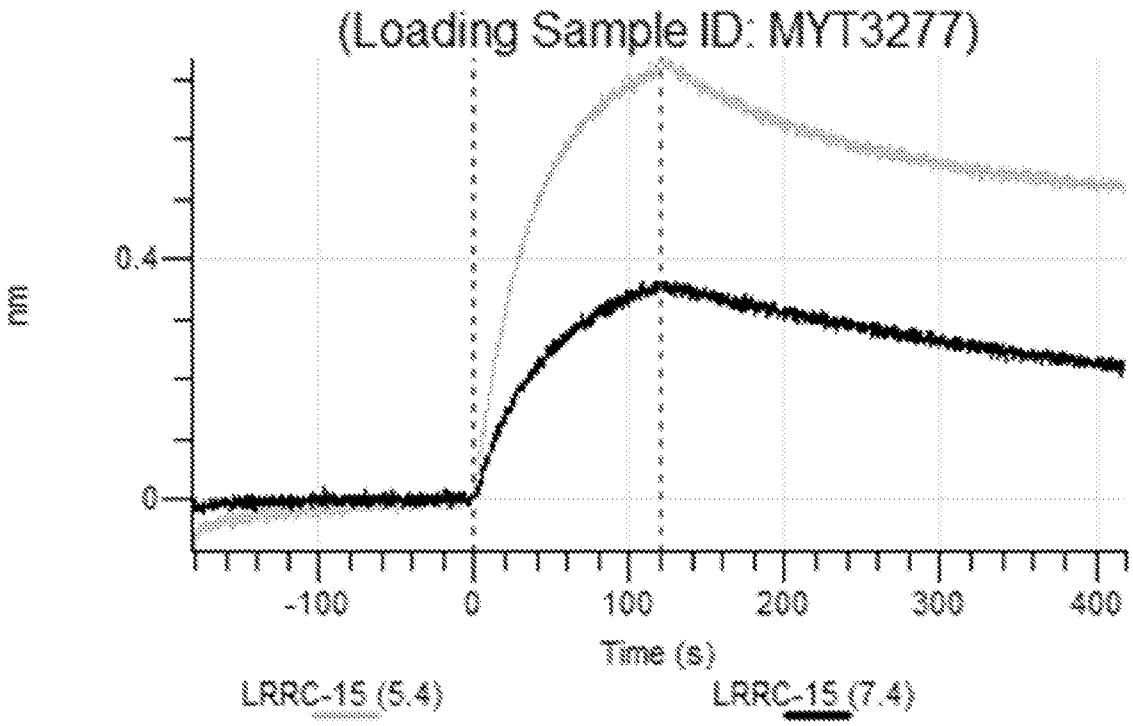

(Loading Sample ID: MYT3277)
nm
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11Z

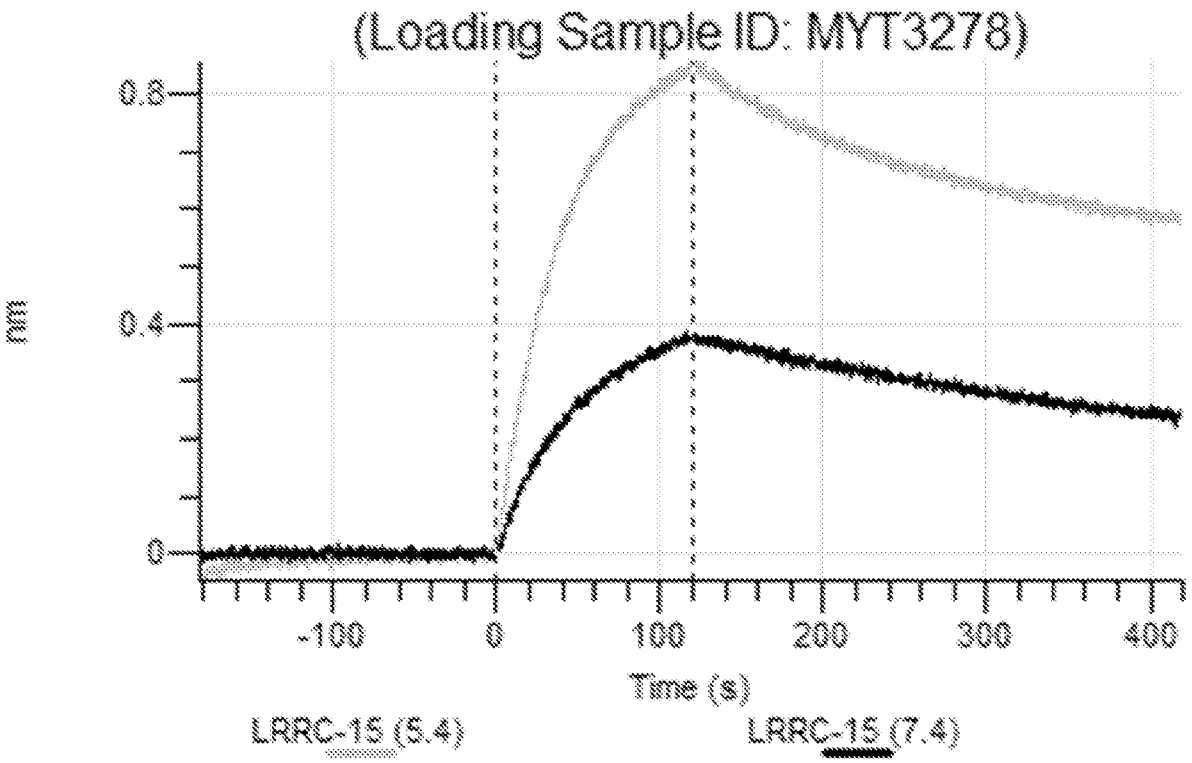

(Loading Sample ID: MYT3278)
nm
0.8
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11AA

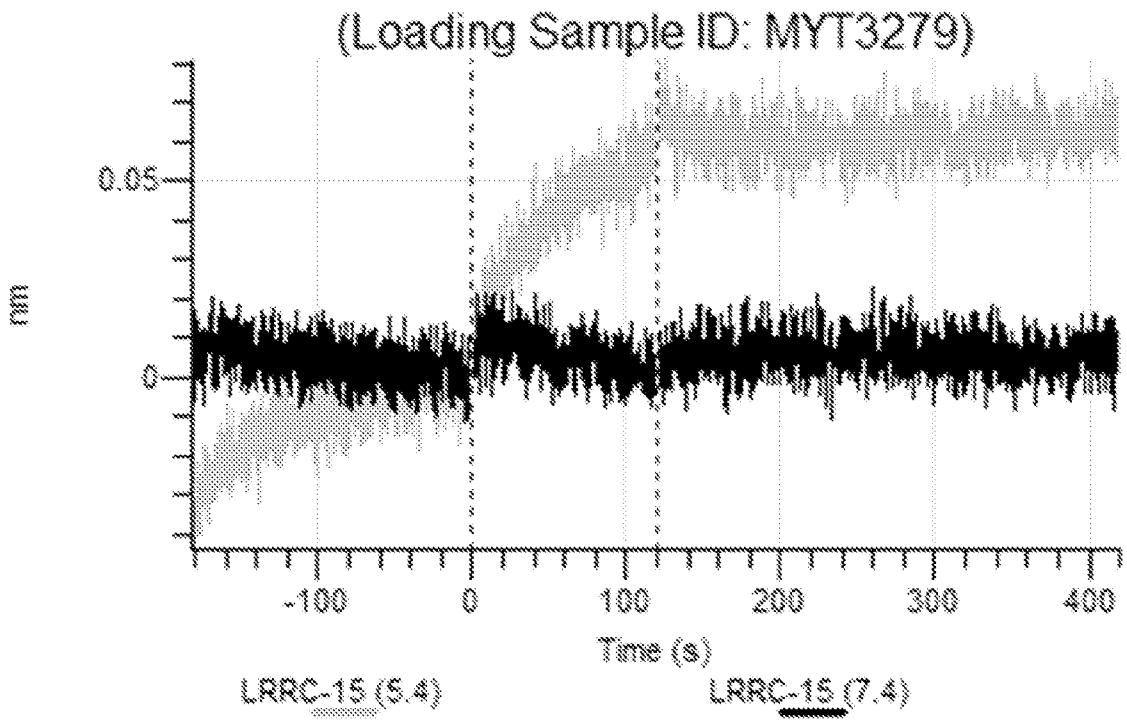

(Loading Sample ID: MYT3279)
0.05
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11AB

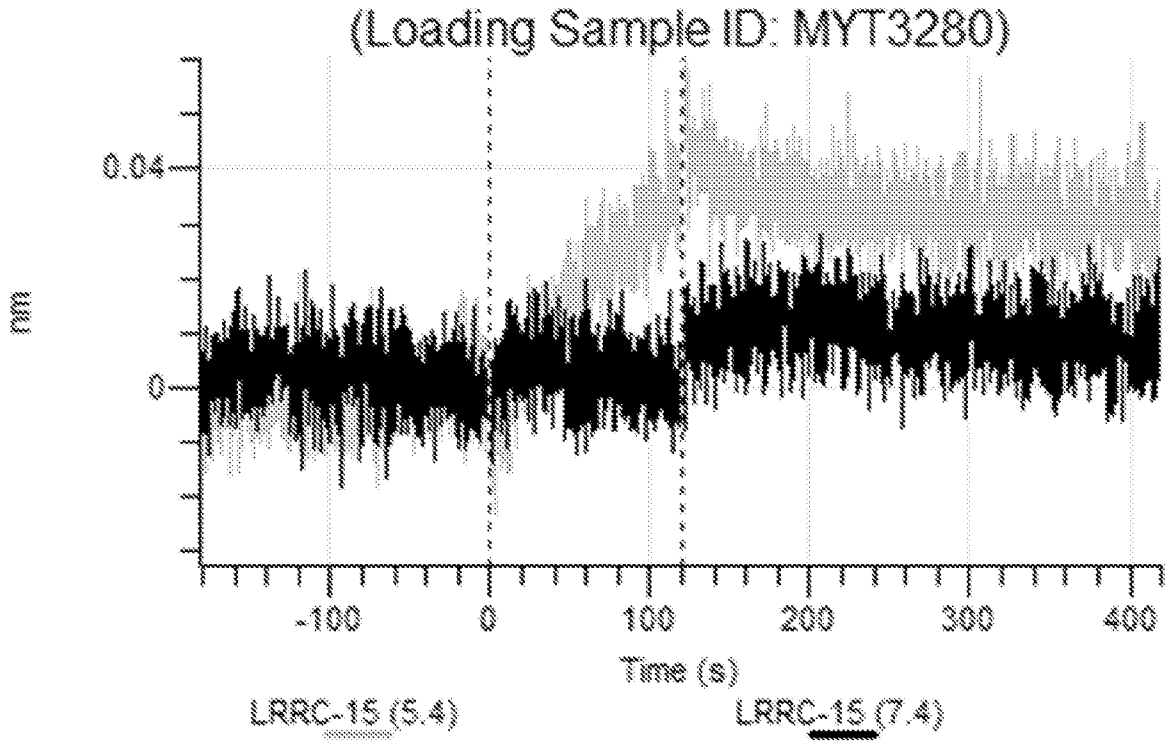

(Loading Sample ID: MYT3280)
0.04
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11AC

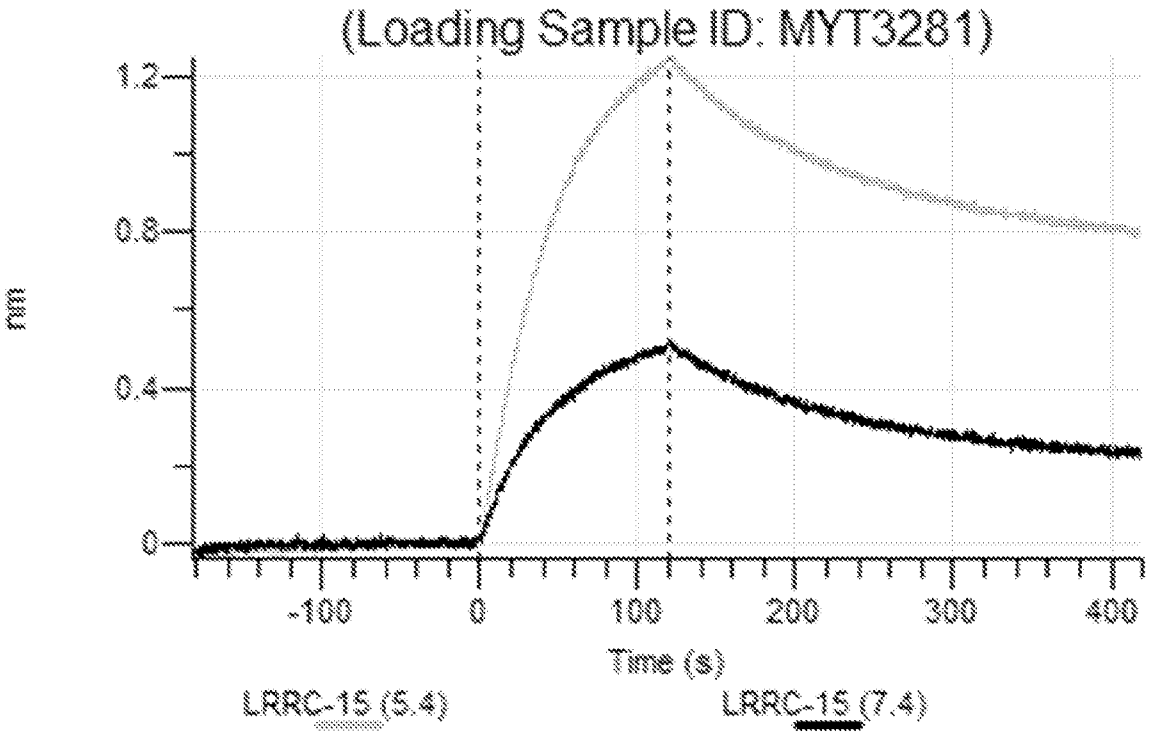

(Loading Sample ID: MYT3281)
1.2
0.8
0.4
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11AD

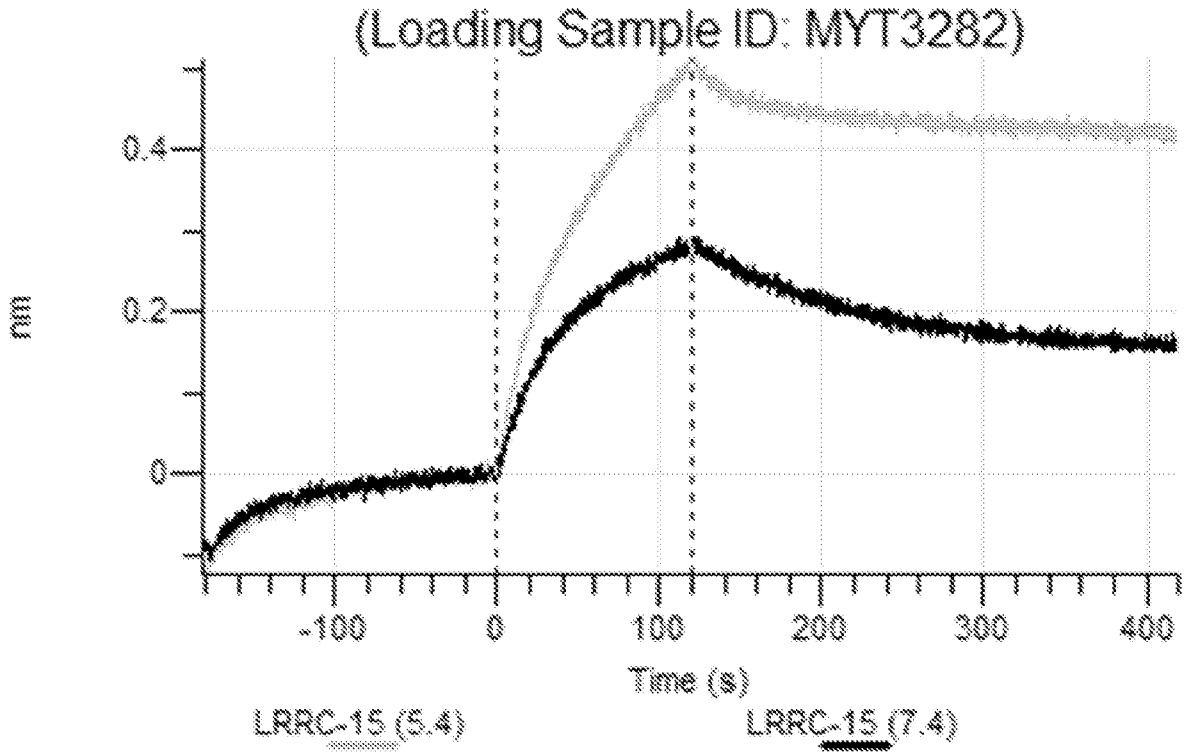

(Loading Sample ID: MYT3282)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11AE

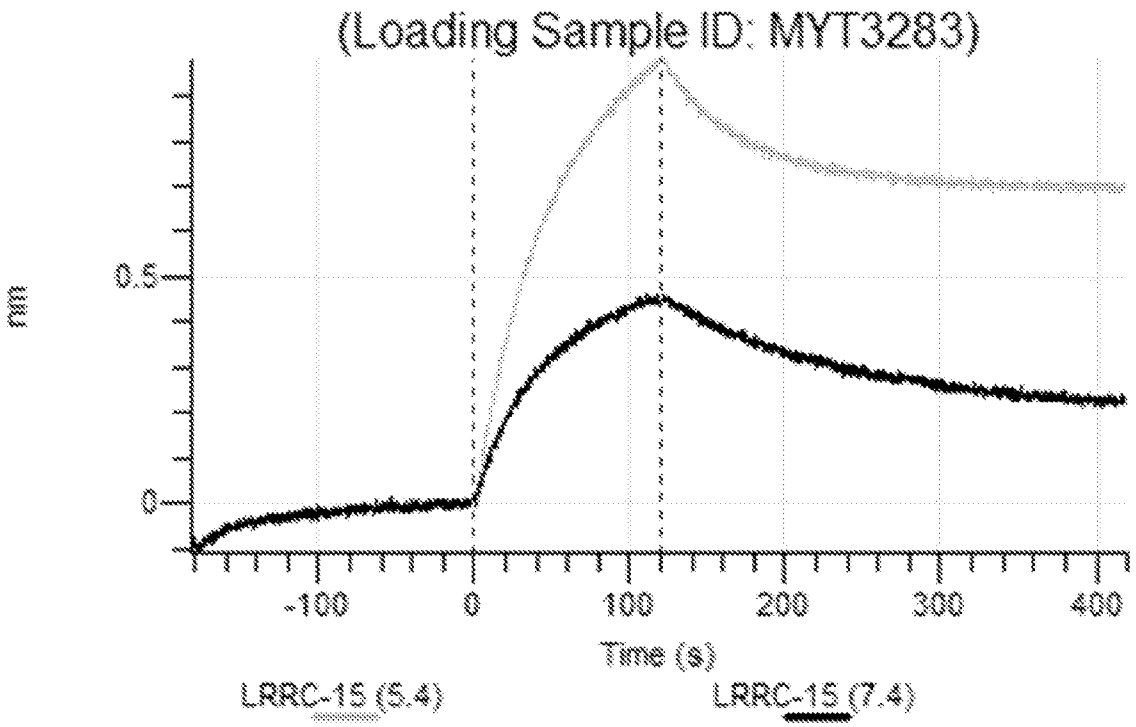

(Loading Sample ID: MYT3283)
nm
0.5
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (6.4)
LRRC-15 (7.4)

FIG. 11AF

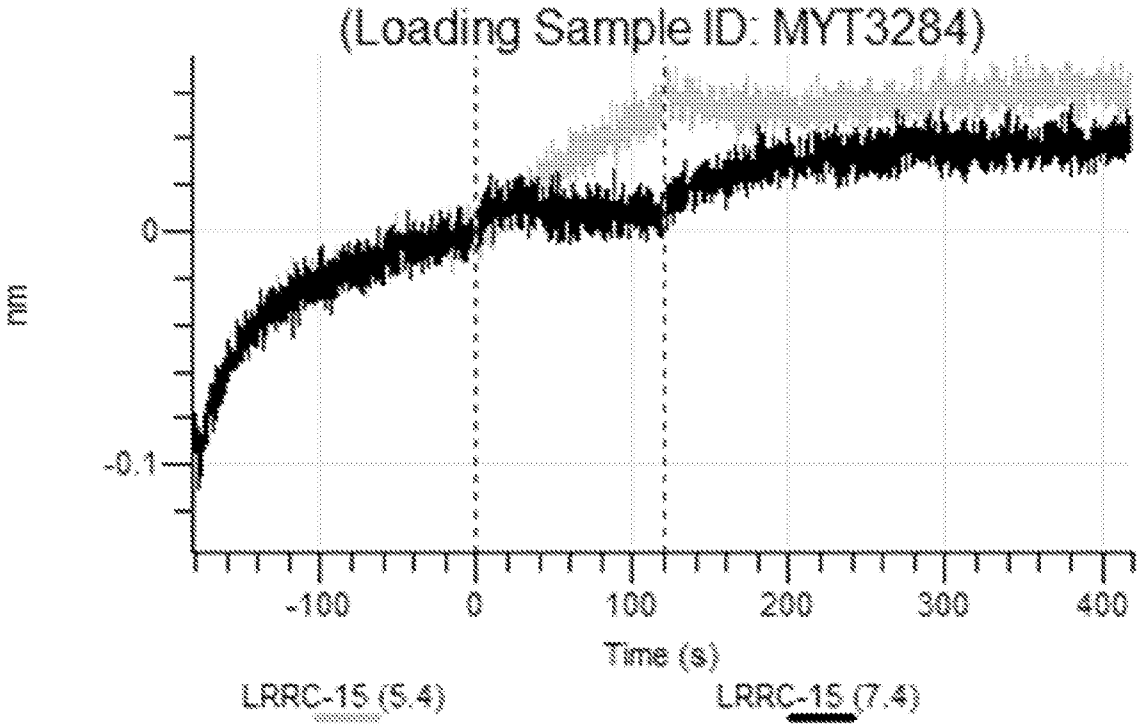

(Loading Sample ID: MYT3284)
nm
0
-0.1
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11AG

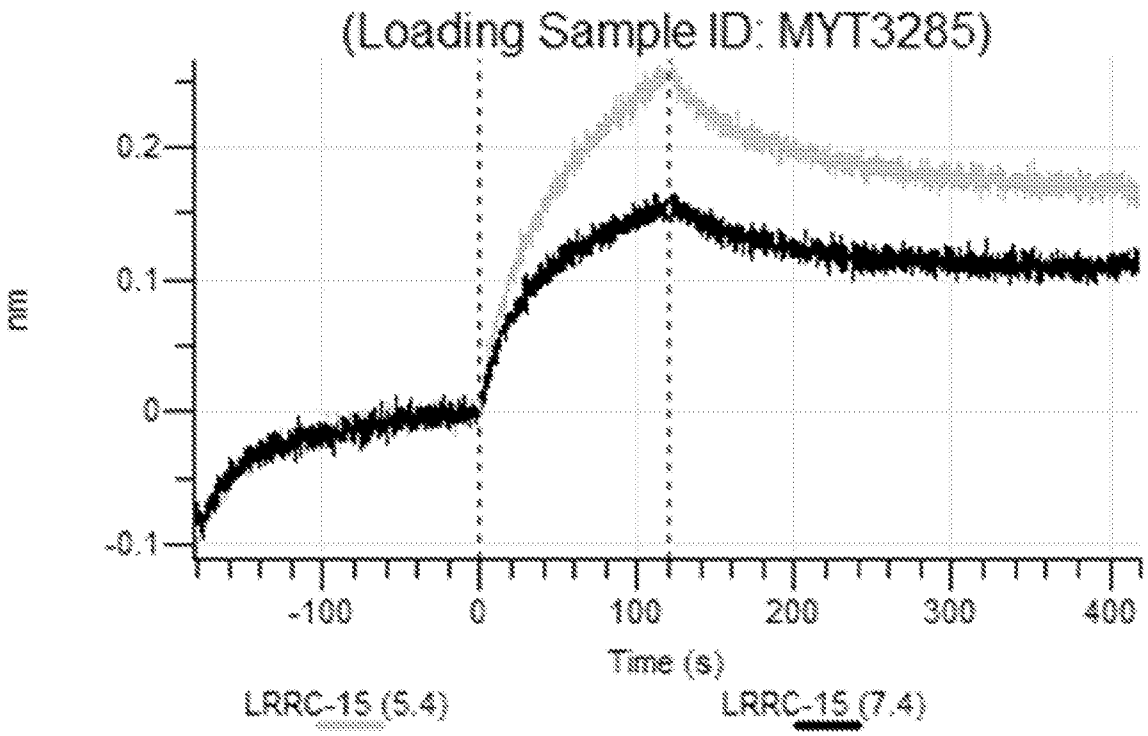

(Loading Sample ID: MYT3285)
nm
0.2
0.1
0
-0.1
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11AH

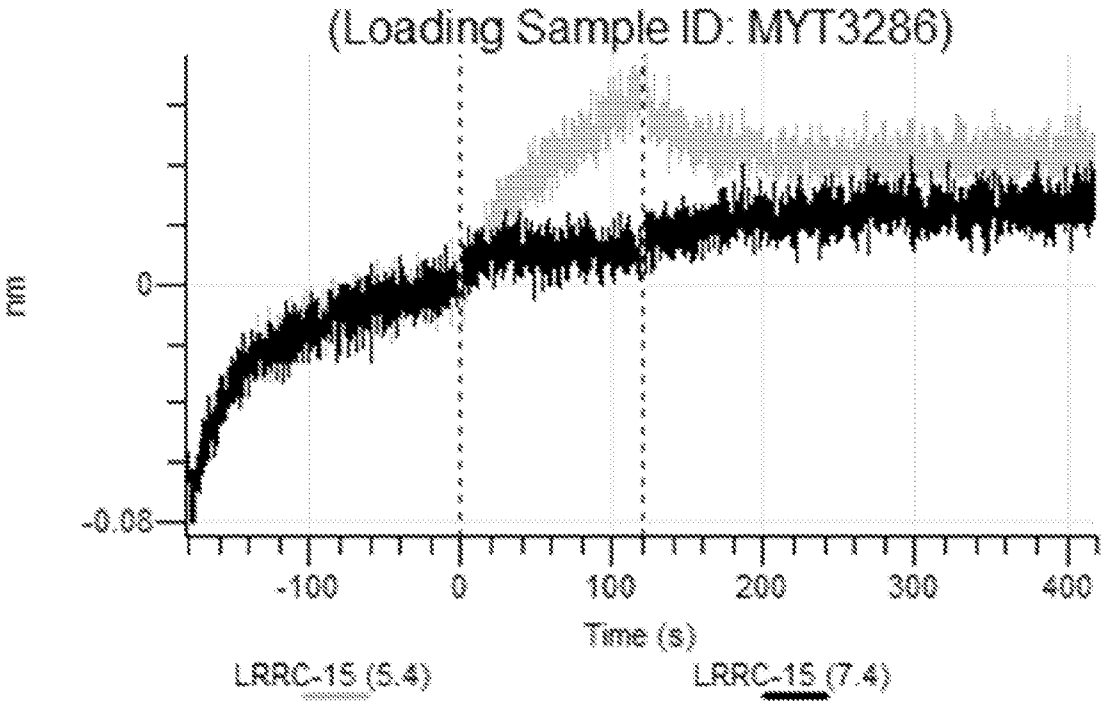

(Loading Sample ID: MYT3286)
nm
0
-0.08
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11AI

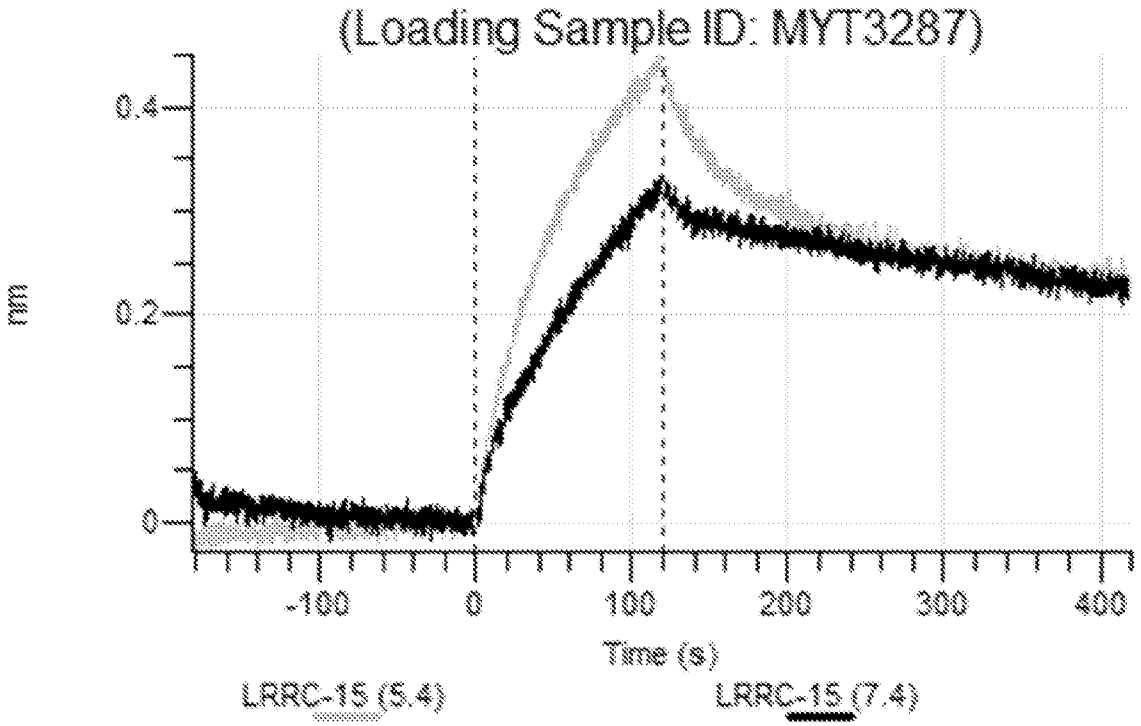

(Loading Sample ID: MYT3287)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11AJ

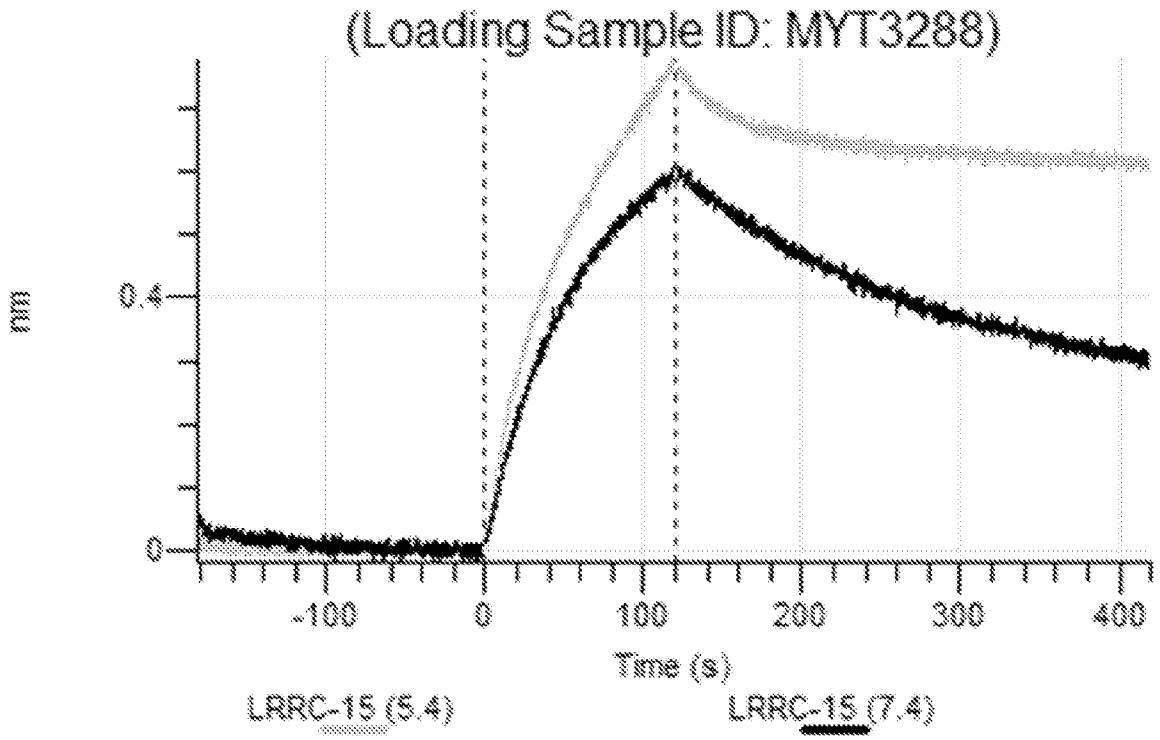

(Loading Sample ID: MYT3288)
nm
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG 11AK

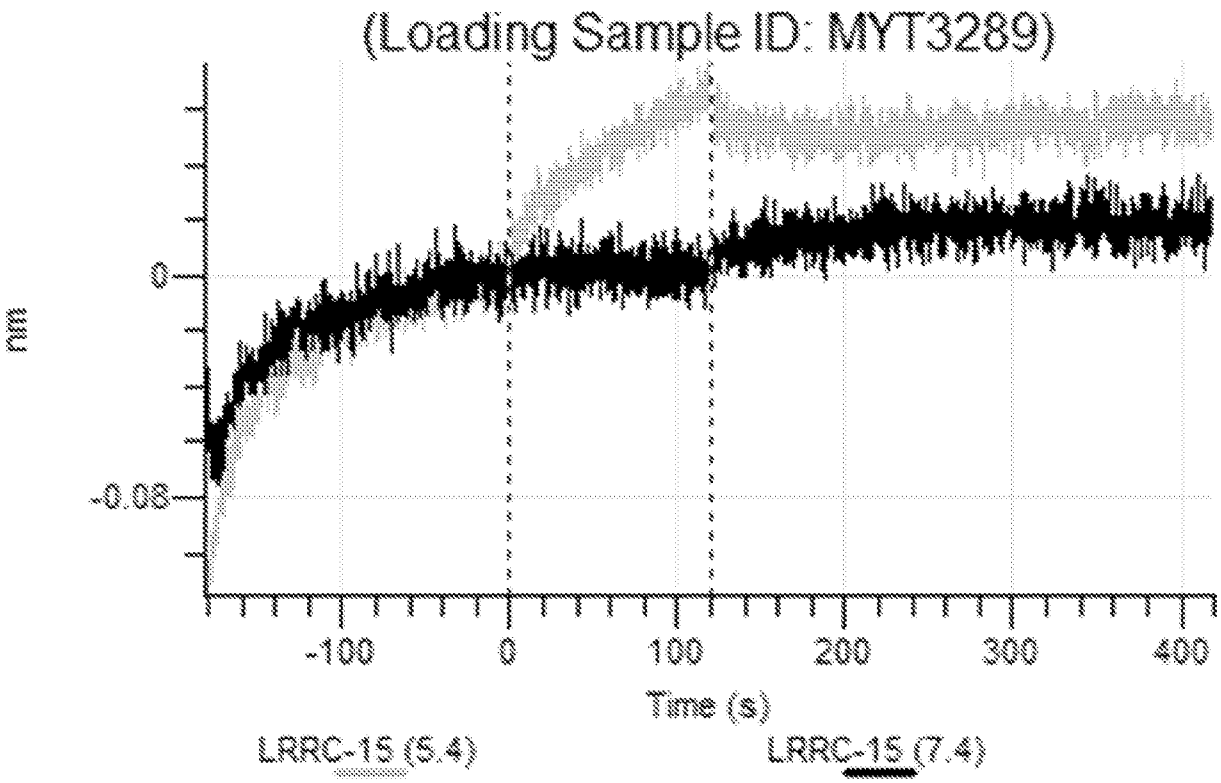

(Loading Sample ID: MYT3289)
nm
0
-0.08
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11AL

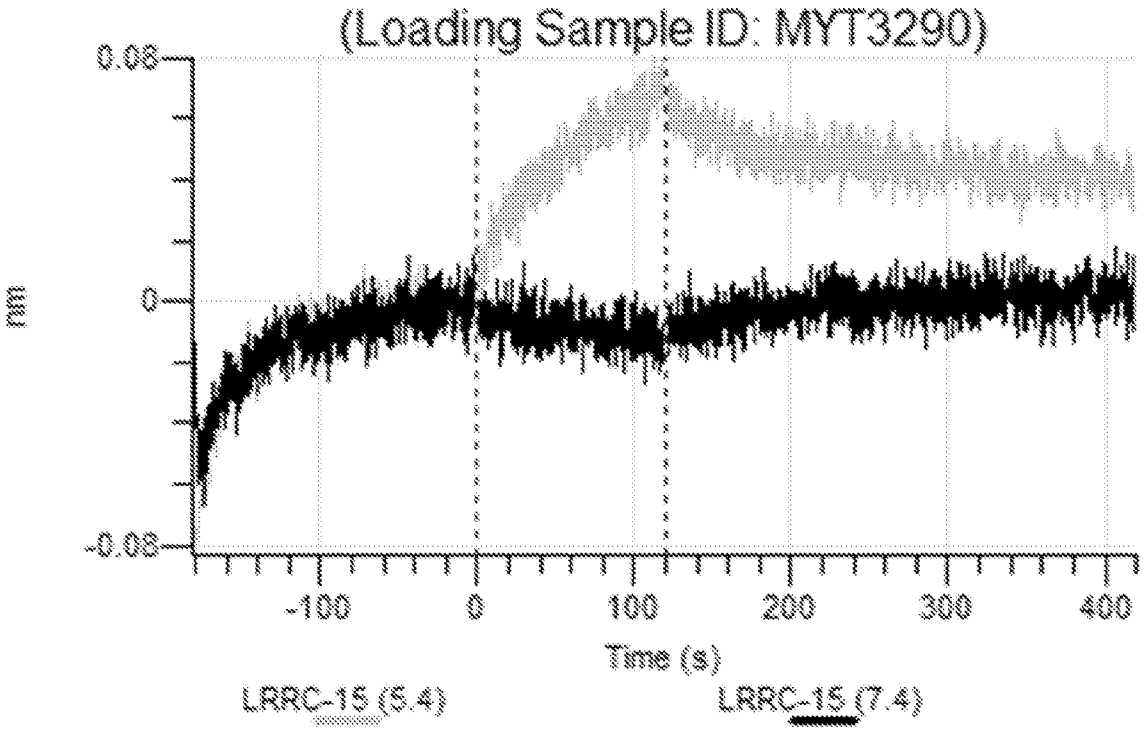

(Loading Sample ID: MYT3290)
0.08
0
-0.08
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11AM

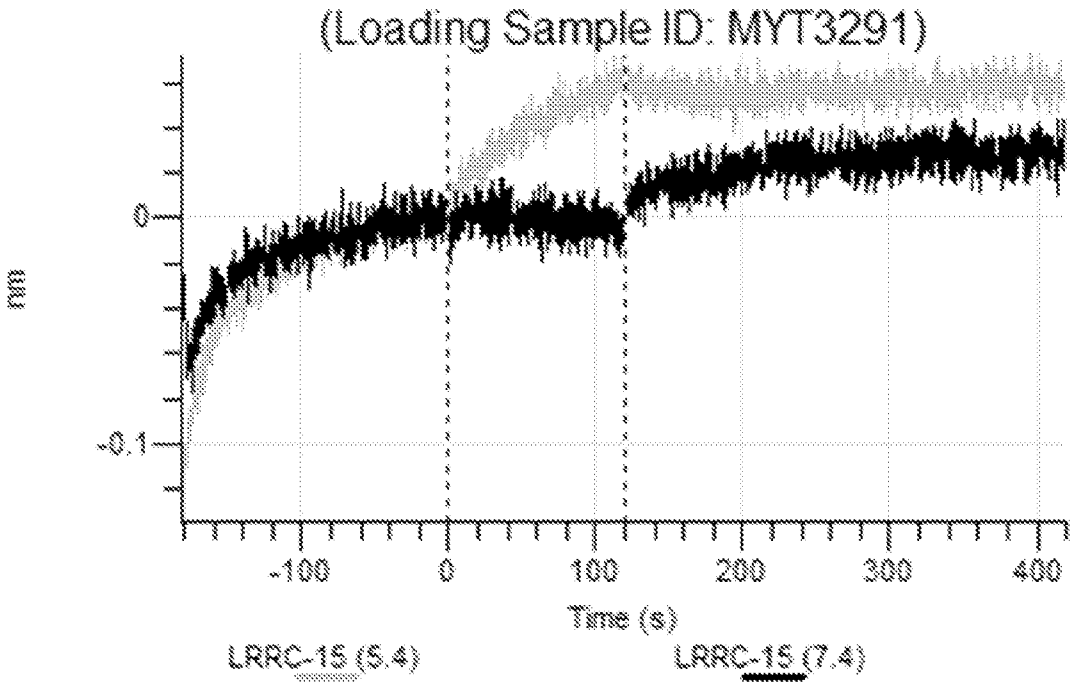

(Loading Sample ID: MYT3291)
nm
0
-0.1
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11AN

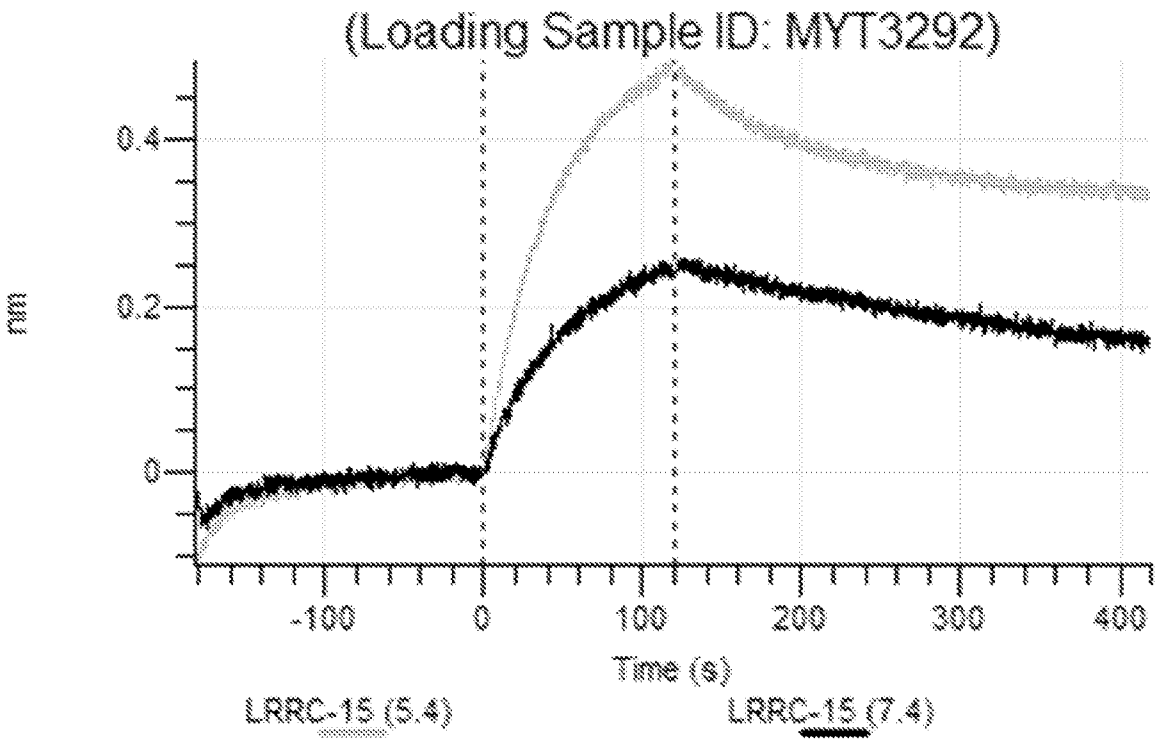

(Loading Sample ID: MYT3292)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 11AO

	Heavy	Light	CDRH1	CDRH2	CDRH3	CDRL1	CDRL2	CDRL3
MYT3252 (hu139.10)	84	85	86	87	88	89	90	91
MYT3253	92	85						
MYT3254	93	85						
MYT3255	94	85						
MYT3256	95	85						
MYT3257	96	85						
MYT3258	97	85						
MYT3259	98	85						
MYT3260	99	85						
MYT3261	100	85						
MYT3262	101	85						
MYT3263	102	85						
MYT3264	103	85						
MYT3265	104	85						
MYT3266	105	85						
MYT3267	106	85						
MYT3268	107	85						
MYT3269	108	85						
MYT3270	109	85						
MYT3271	110	85						
MYT3272	111	85						
MYT3273	112	85						
MYT3274	113	85						
MYT3275	114	85						
MYT3276	115	85						
MYT3277	116	85						
MYT3278	117	85						
MYT3279	118	85						
MYT3280	119	85						
MYT3281	120	85						
MYT3282	121	85						
MYT3283	122	85						
MYT3284	123	85						
MYT3285	124	85						
MYT3286	125	85						
MYT3287	126	85						
MYT3288	127	85						
MYT3289	128	85						
MYT3290	129	85						
MYT3291	130	85						
MYT3292	131	85						

FIG. 12

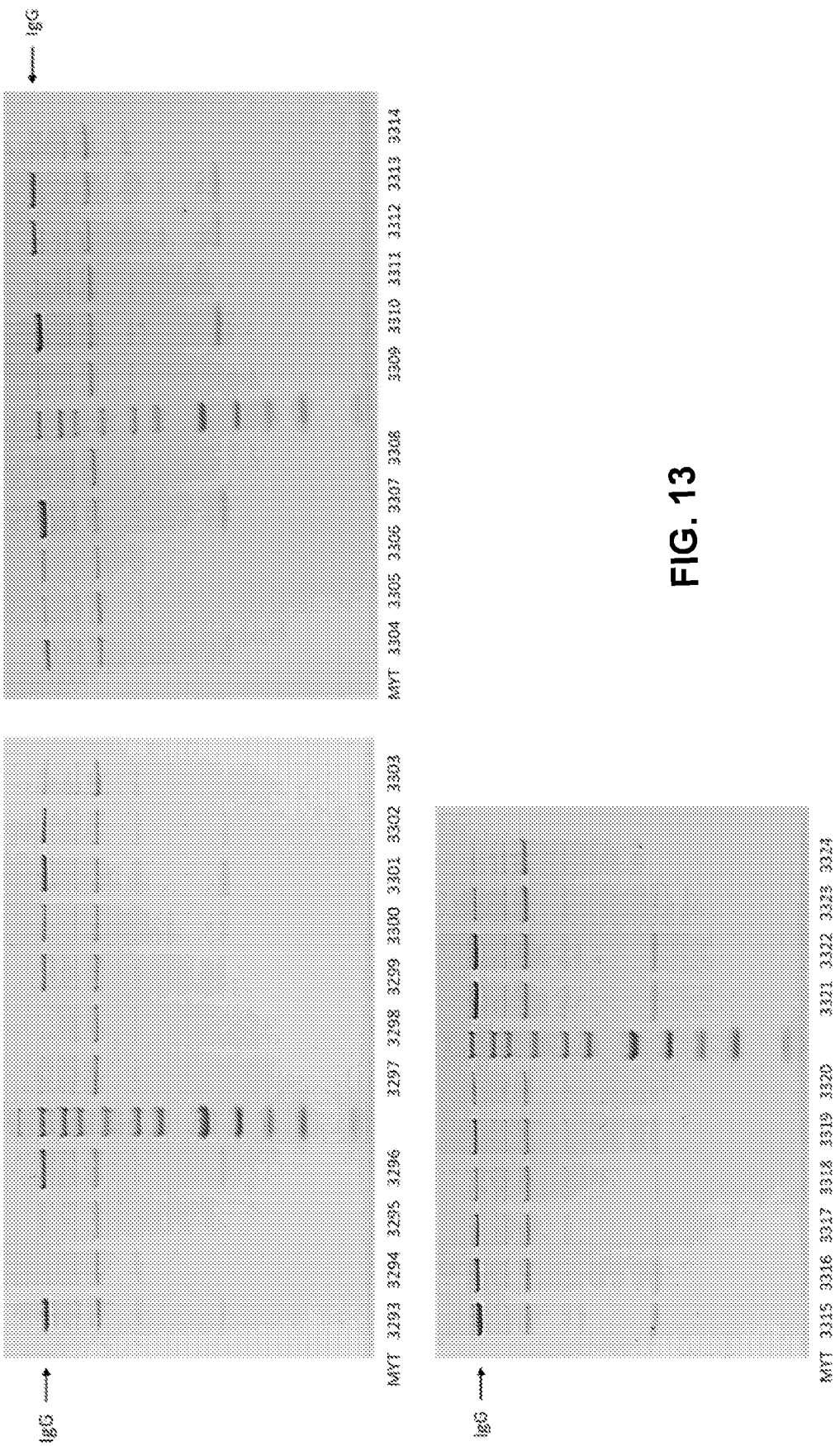

IgG
MWT 3293 3294 3295 3296 3297 3298 3299 3300 3301 3302 3303
IgG
MWT 3304 3305 3306 3307 3308 3309 3310 3311 3312 3313 3314
IgG
MWT 3315 3316 3317 3318 3319 3320 3321 3322 3323 3324

FIG. 13

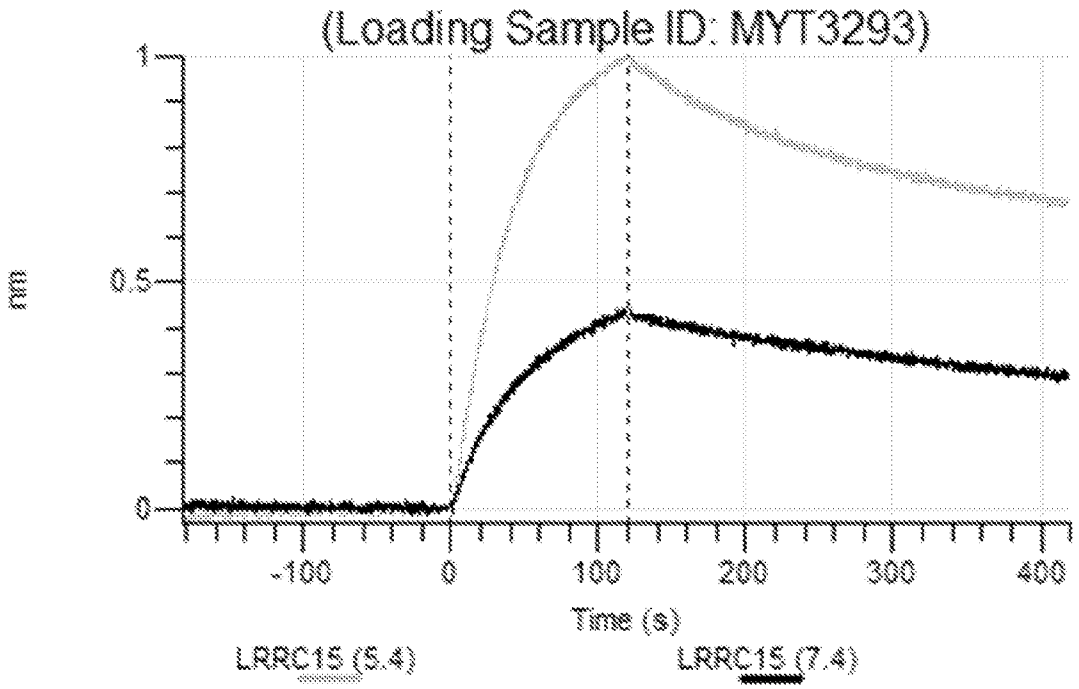

(Loading Sample ID: MYT3293)
1
0.5
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14A

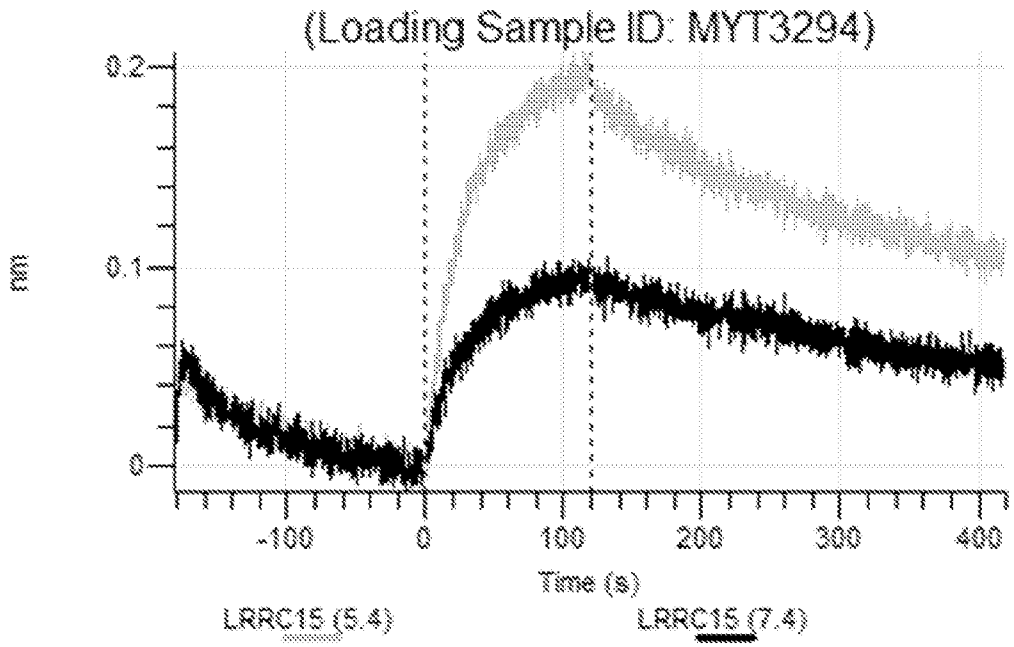

(Loading Sample ID: MYT3294)
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14B

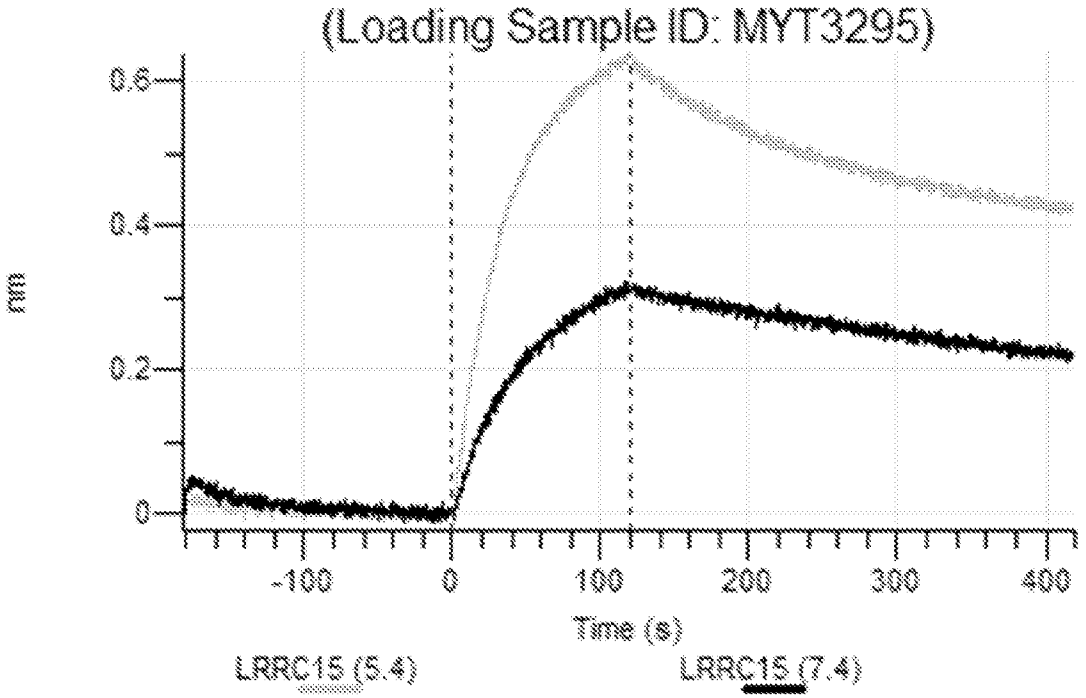

(Loading Sample ID: MYT3295)
0.6
0.4
0.2
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14C

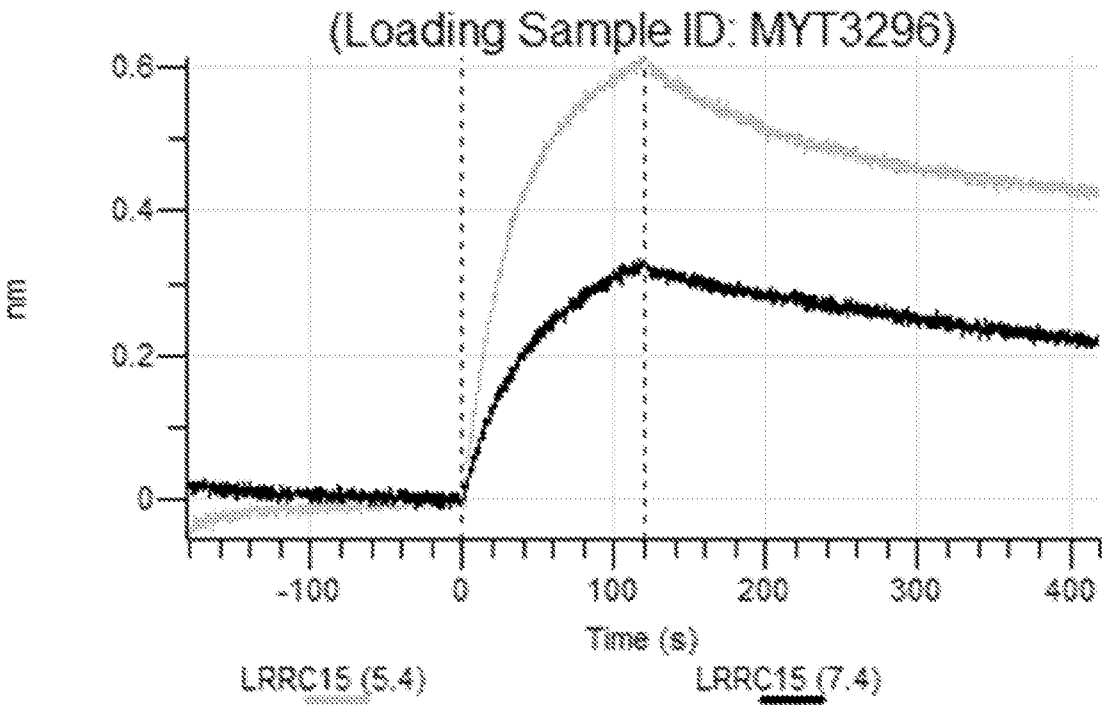

(Loading Sample ID: MYT3296)
0.6
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14D

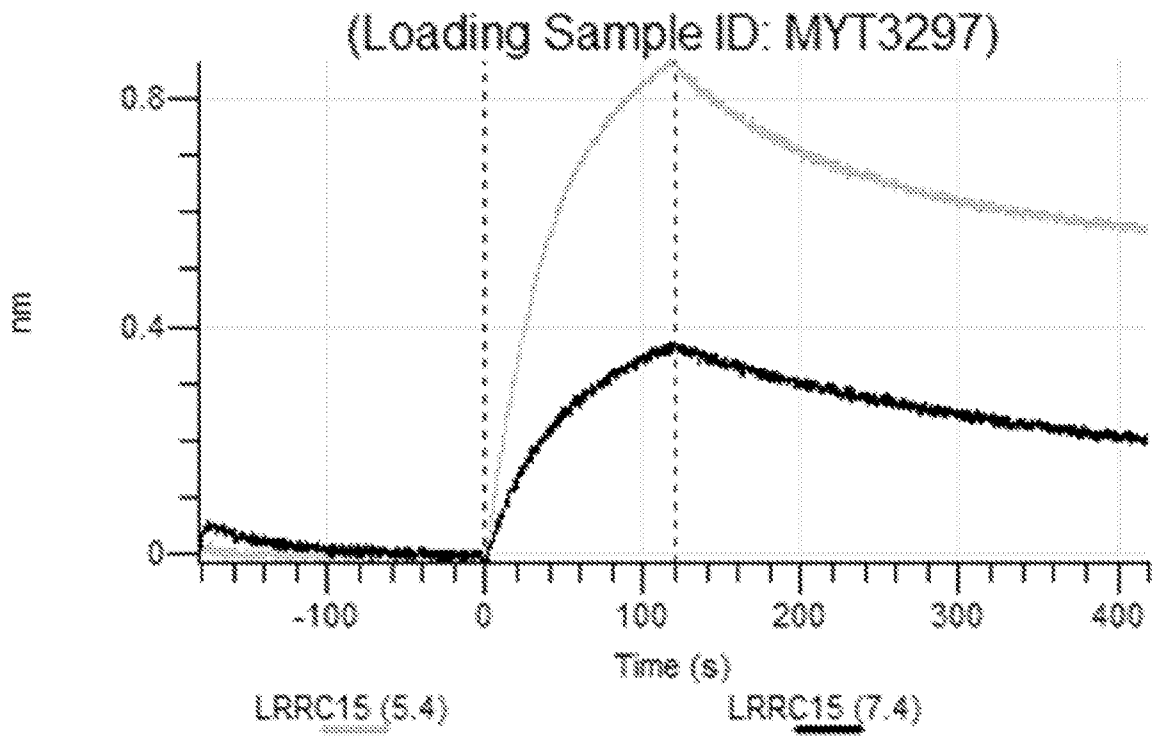

(Loading Sample ID: MYT3297)
nm
0.8
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14E

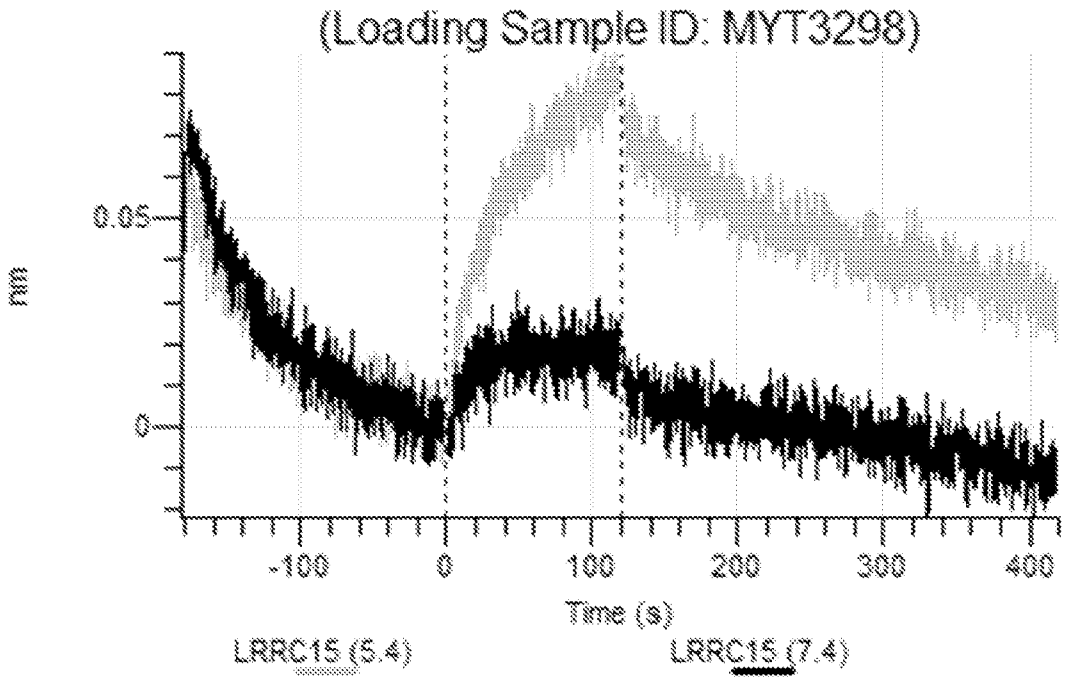

(Loading Sample ID: MYT3298)
0.05
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14F

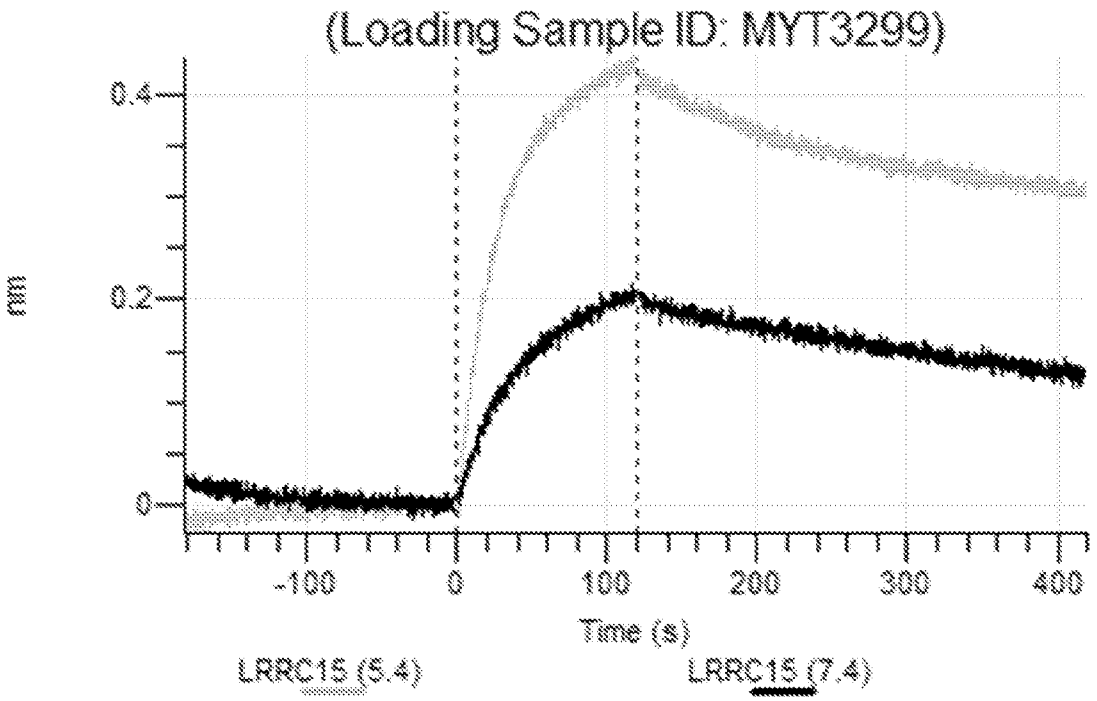

(Loading Sample ID: MYT3299)
0.4
0.2
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14G

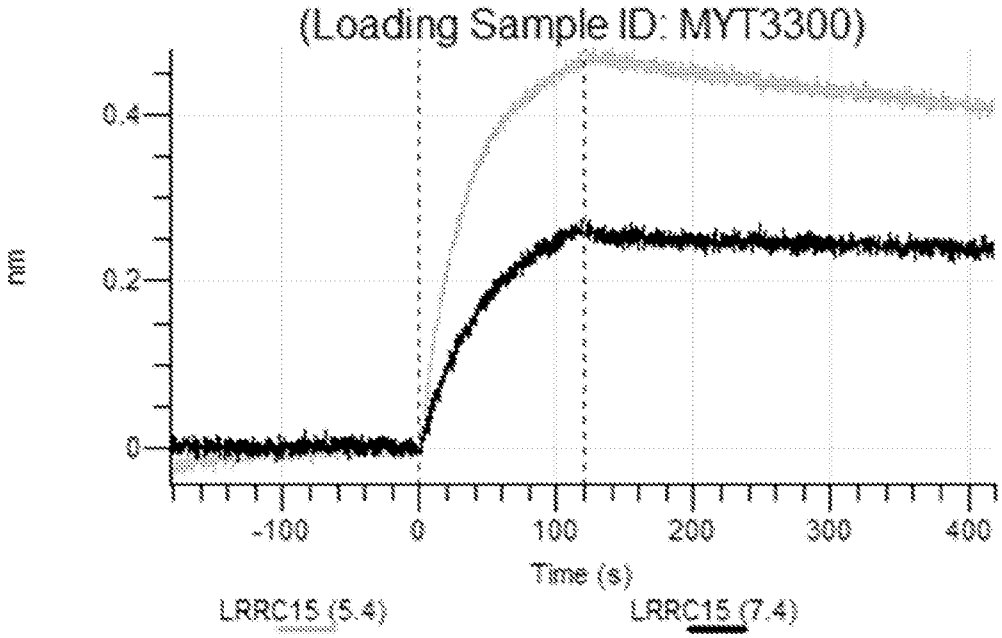

(Loading Sample ID: MYT3300)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14H

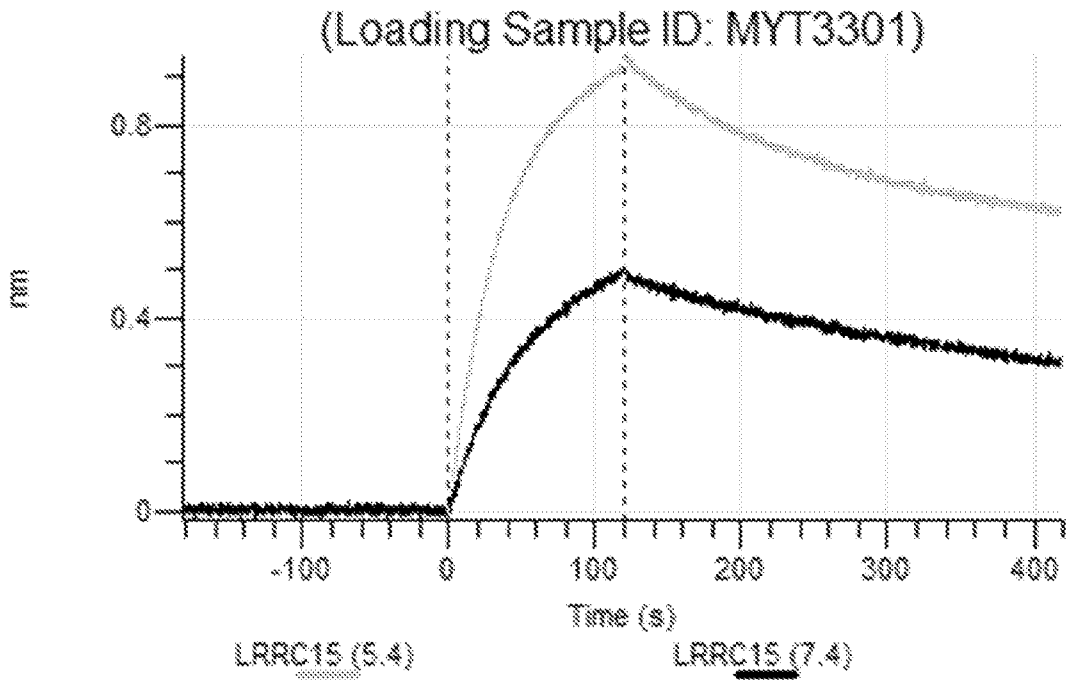

(Loading Sample ID: MYT3301)
nm
0.8
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14I

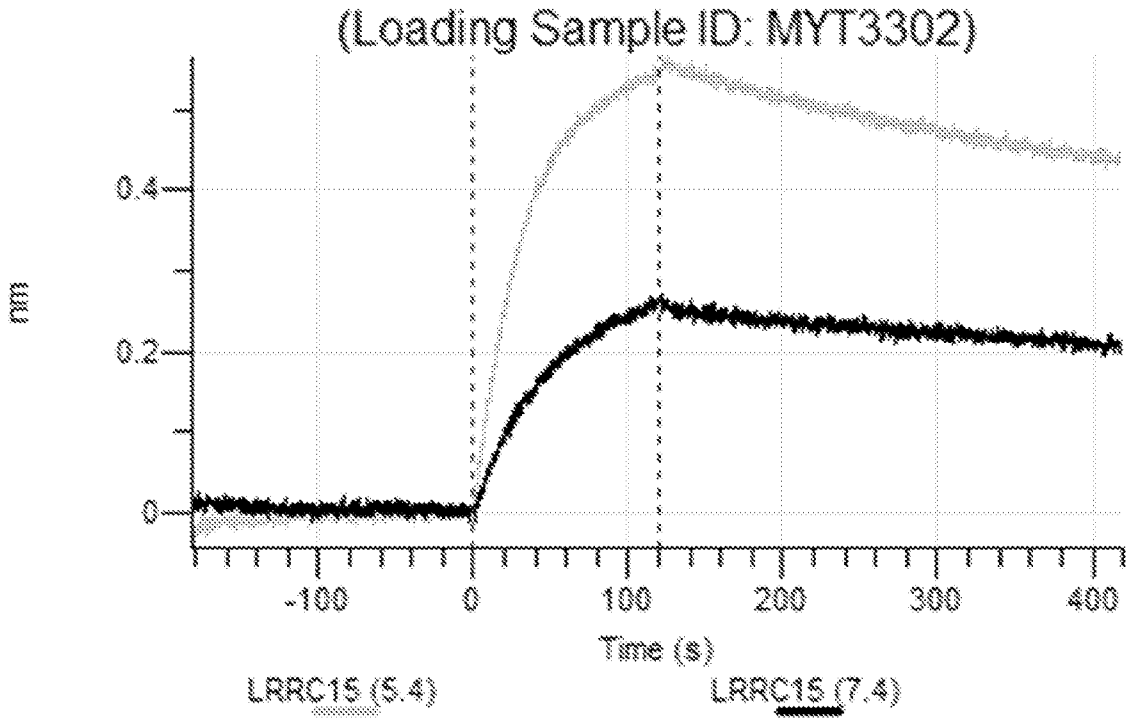

(Loading Sample ID: MYT3302)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14J

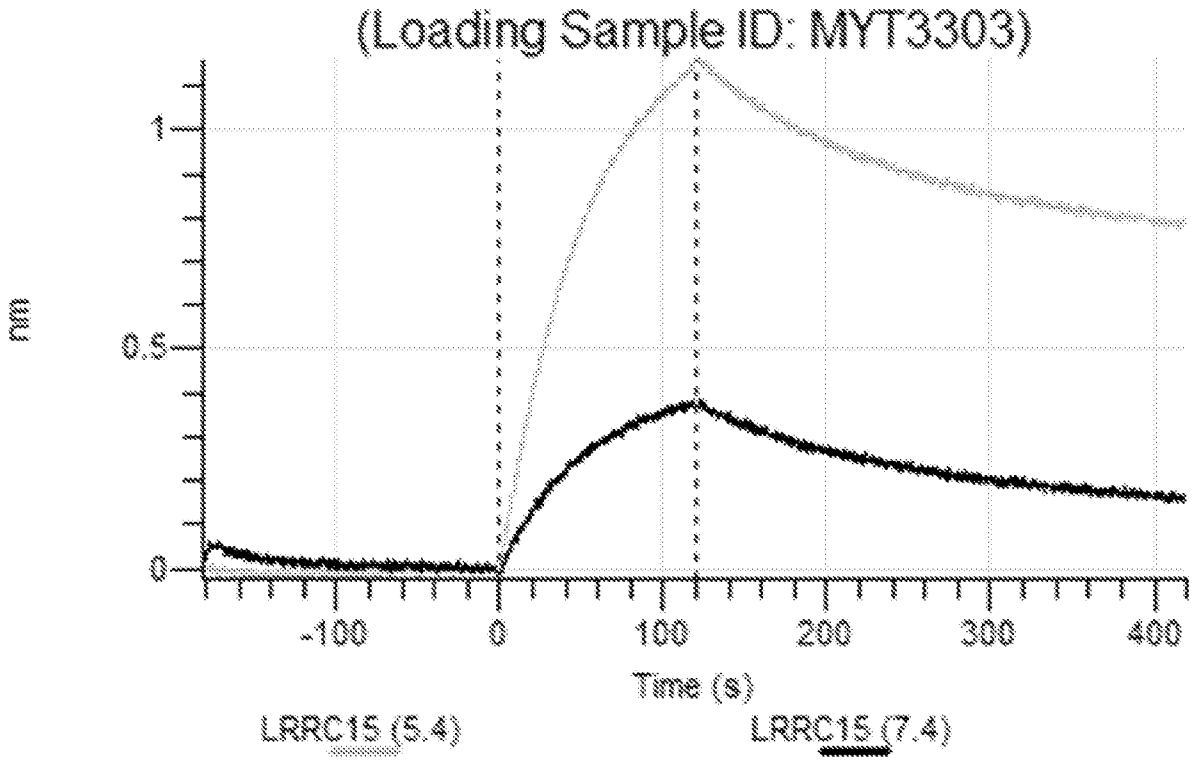

(Loading Sample ID: MYT3303)
nm
1
0.5
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14K

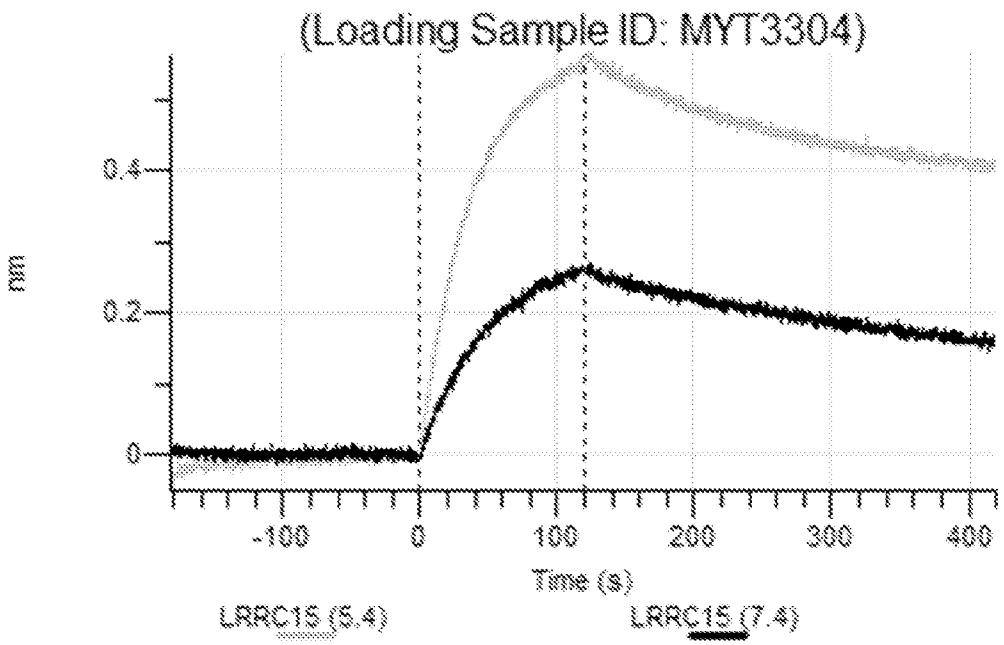

(Loading Sample ID: MYT3304)
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14L

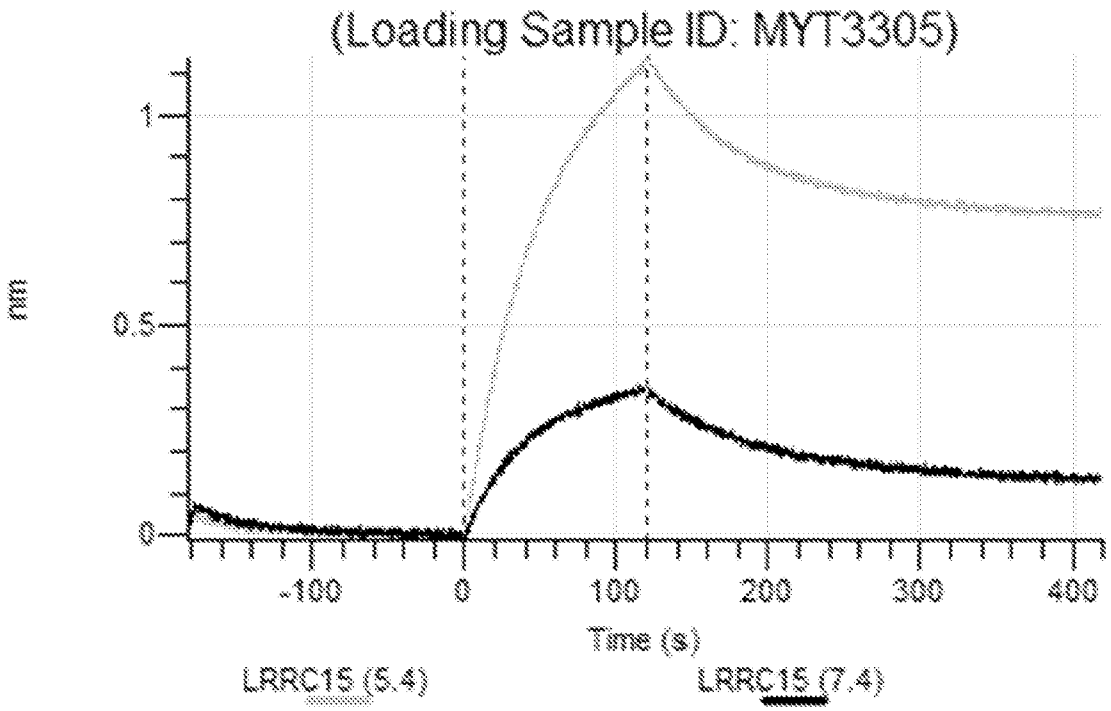

(Loading Sample ID: MYT3305)
nm
1
0.5
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14M

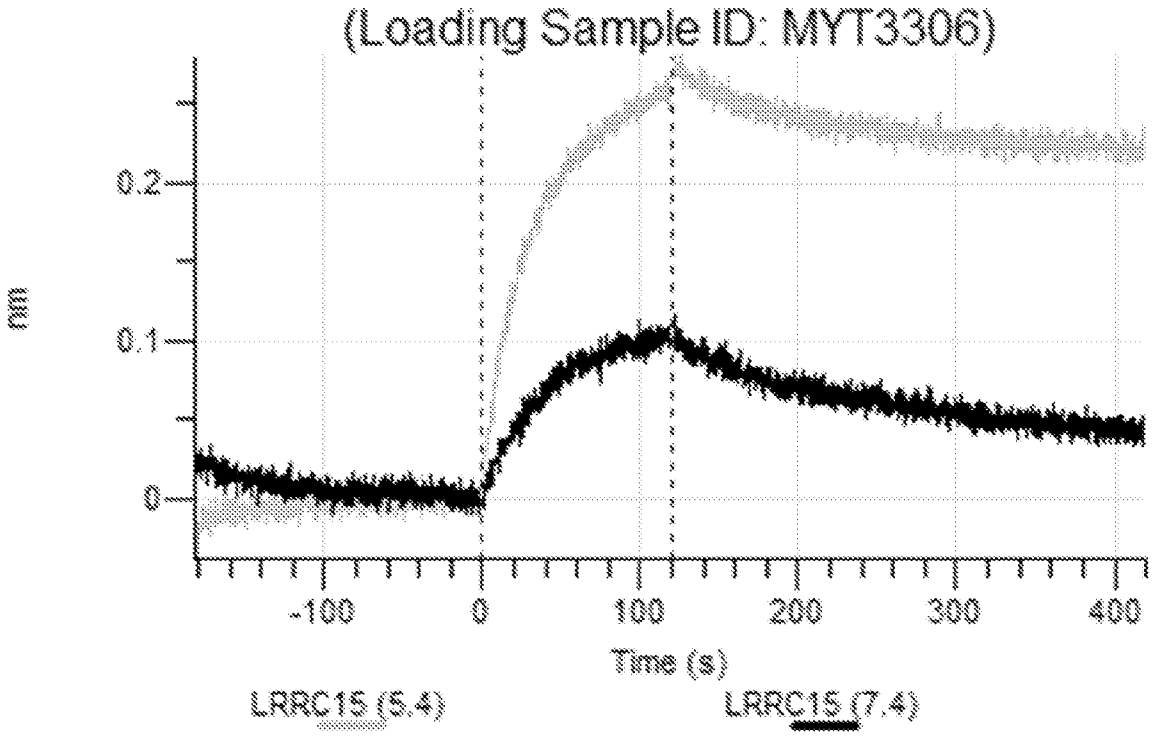

(Loading Sample ID: MYT3306)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14N

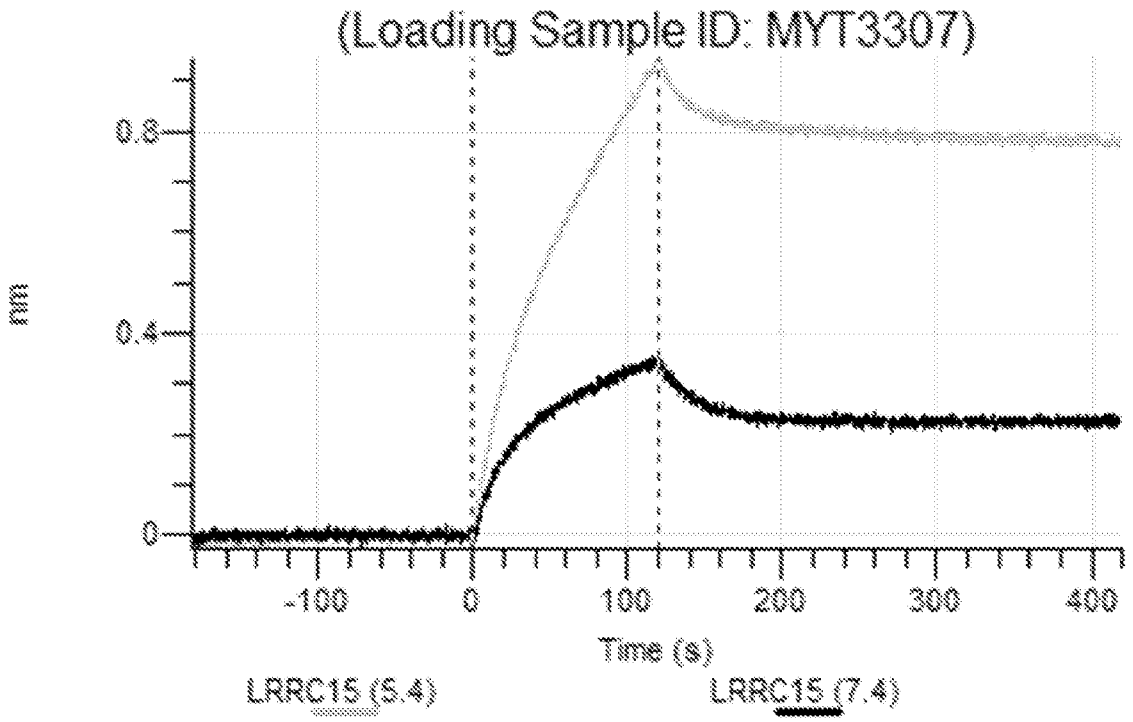

(Loading Sample ID: MYT3307)
nm
0.8
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14O

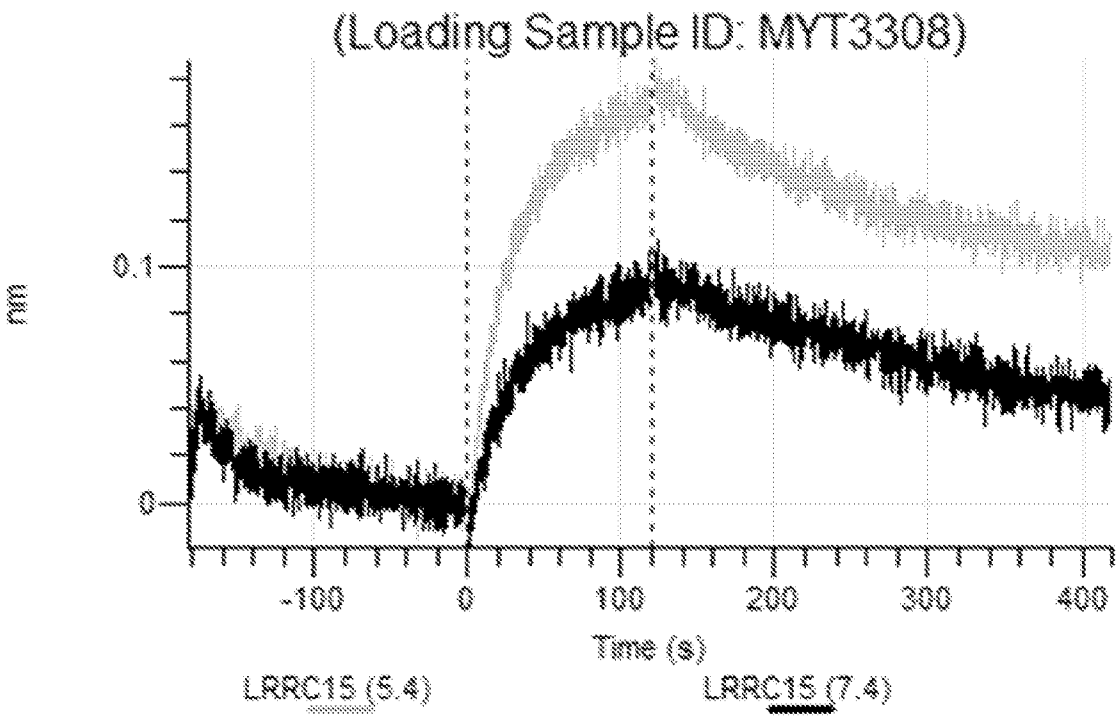

(Loading Sample ID: MYT3308)
nm
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14P

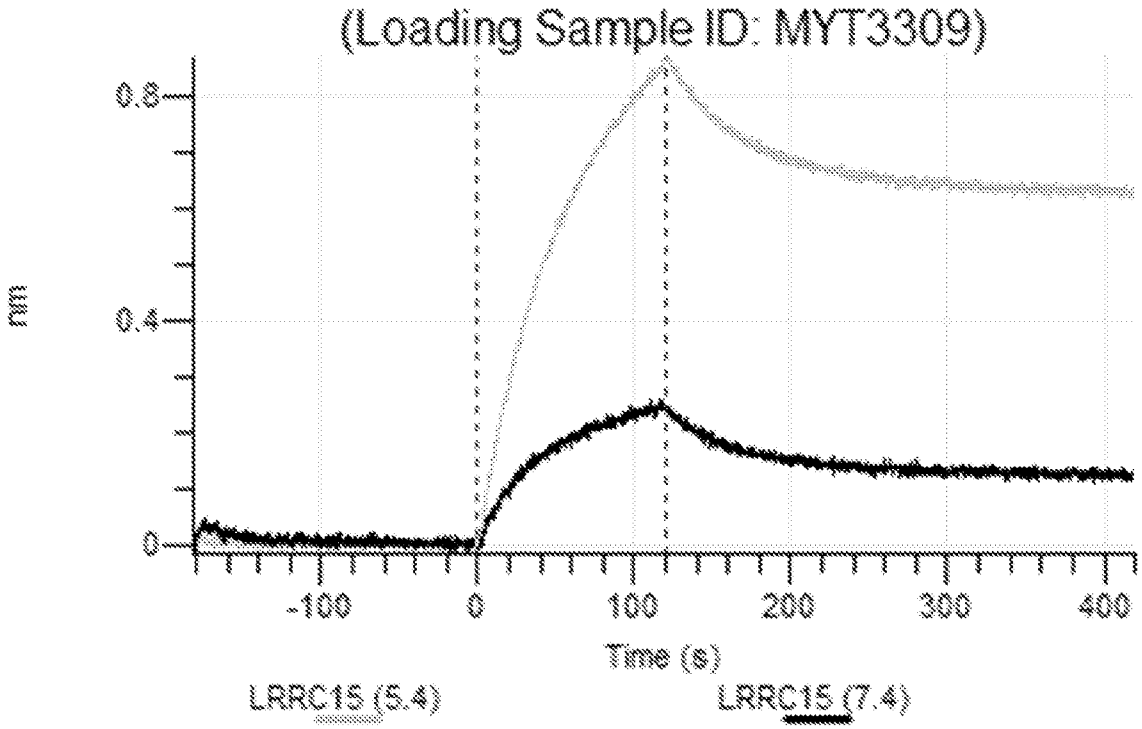

(Loading Sample ID: MYT3309)
nm
0.8
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14Q

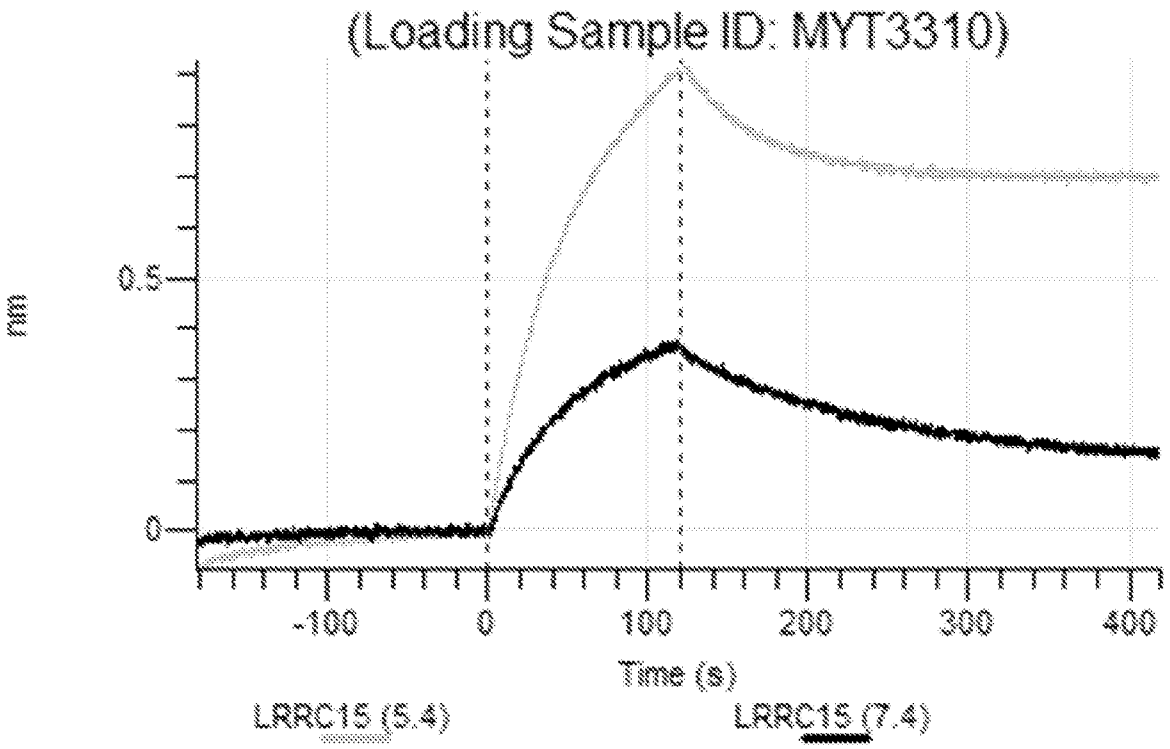

(Loading Sample ID: MYT3310)
(nm)
0.5
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14R

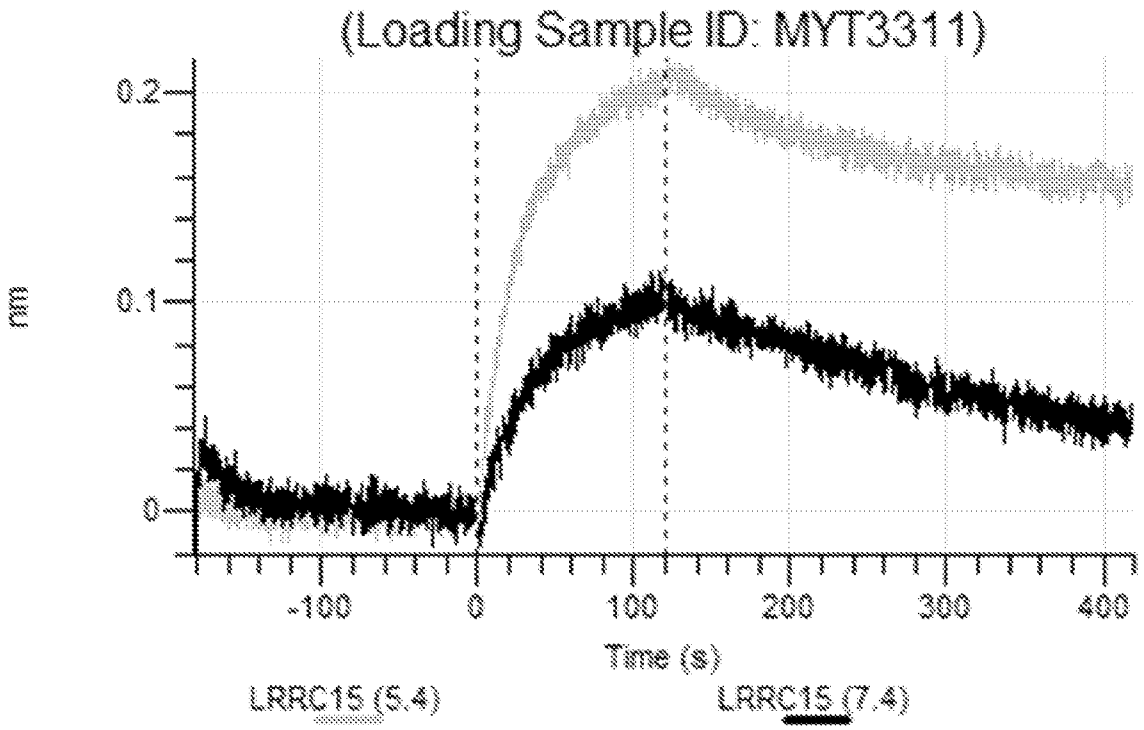

(Loading Sample ID: MYT3311)
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14S

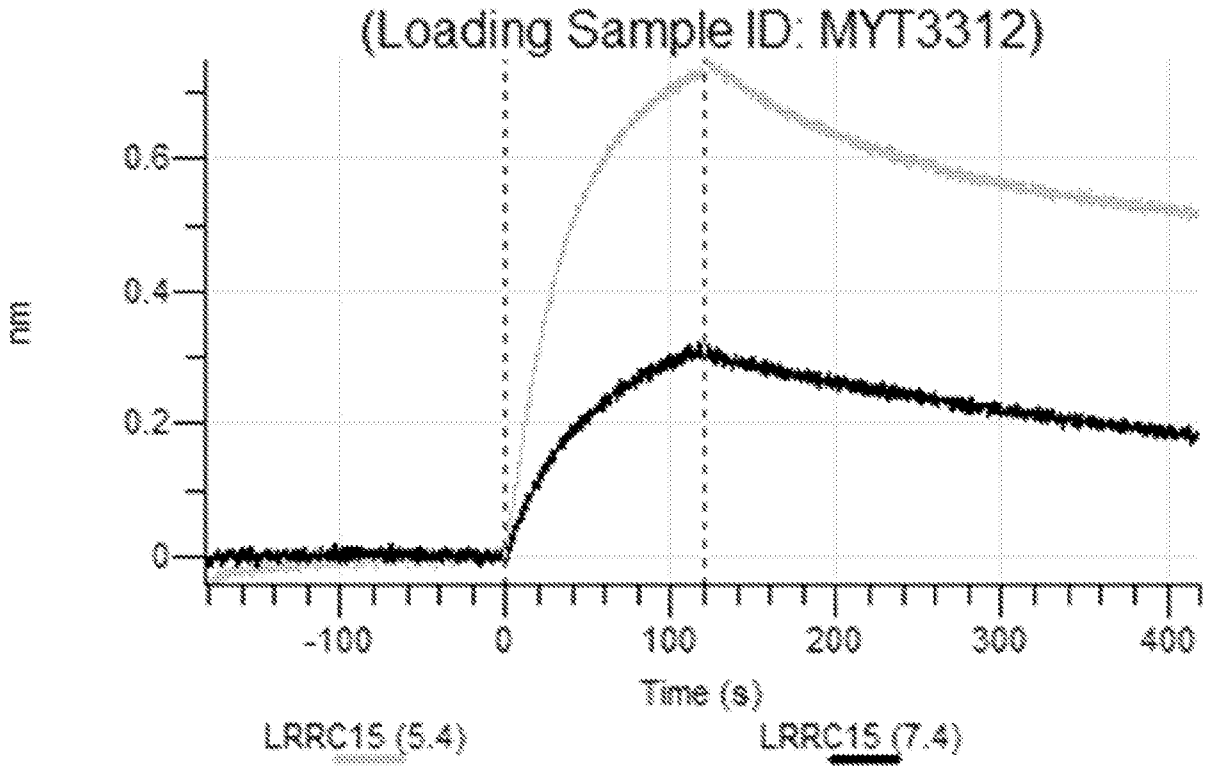

(Loading Sample ID: MYT3312)
nm
0.6
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14T

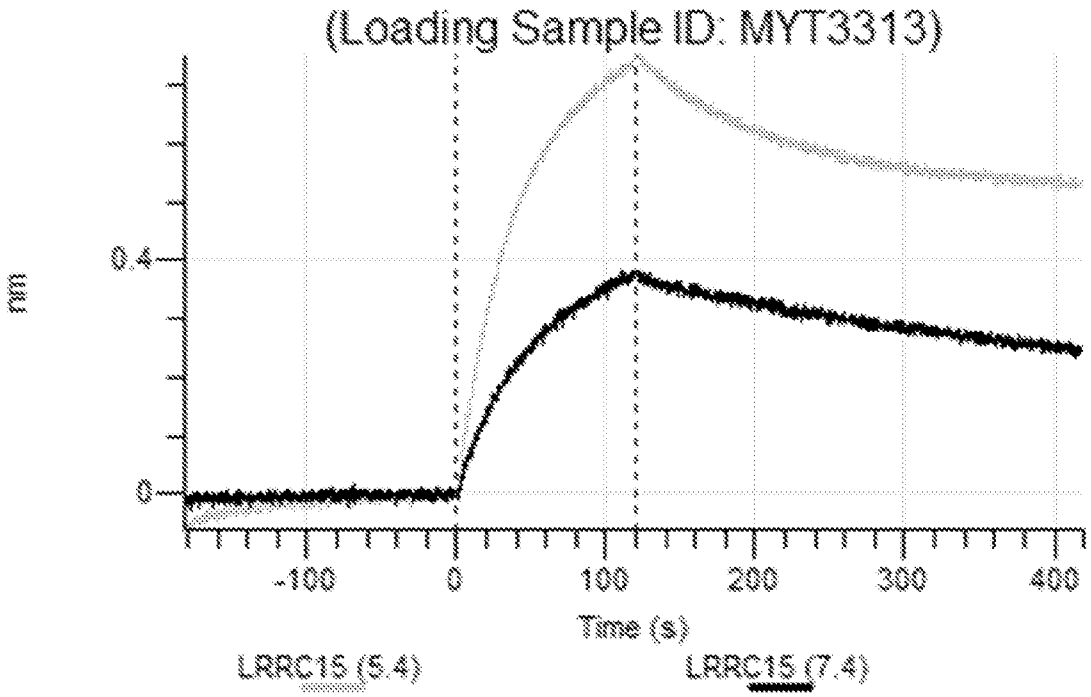

(Loading Sample ID: MYT3313)
nm
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14U

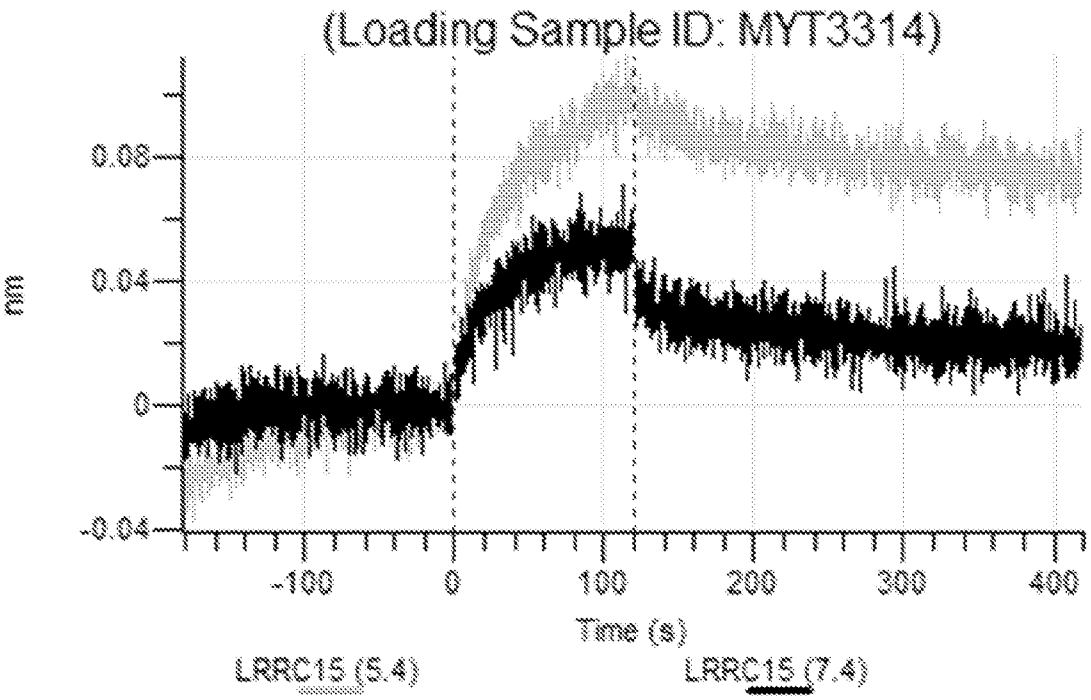

(Loading Sample ID: MYT3314)
nm
0.08
0.04
0
-0.04
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14V

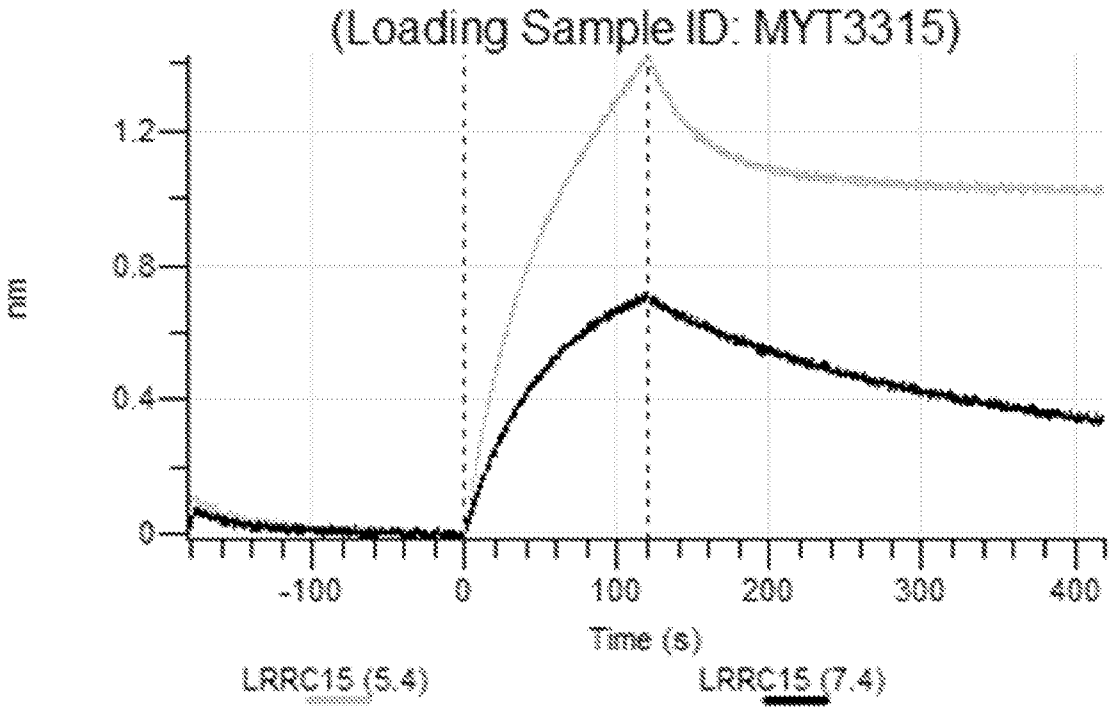

(Loading Sample ID: MYT3315)
nm
1.2
0.8
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14W

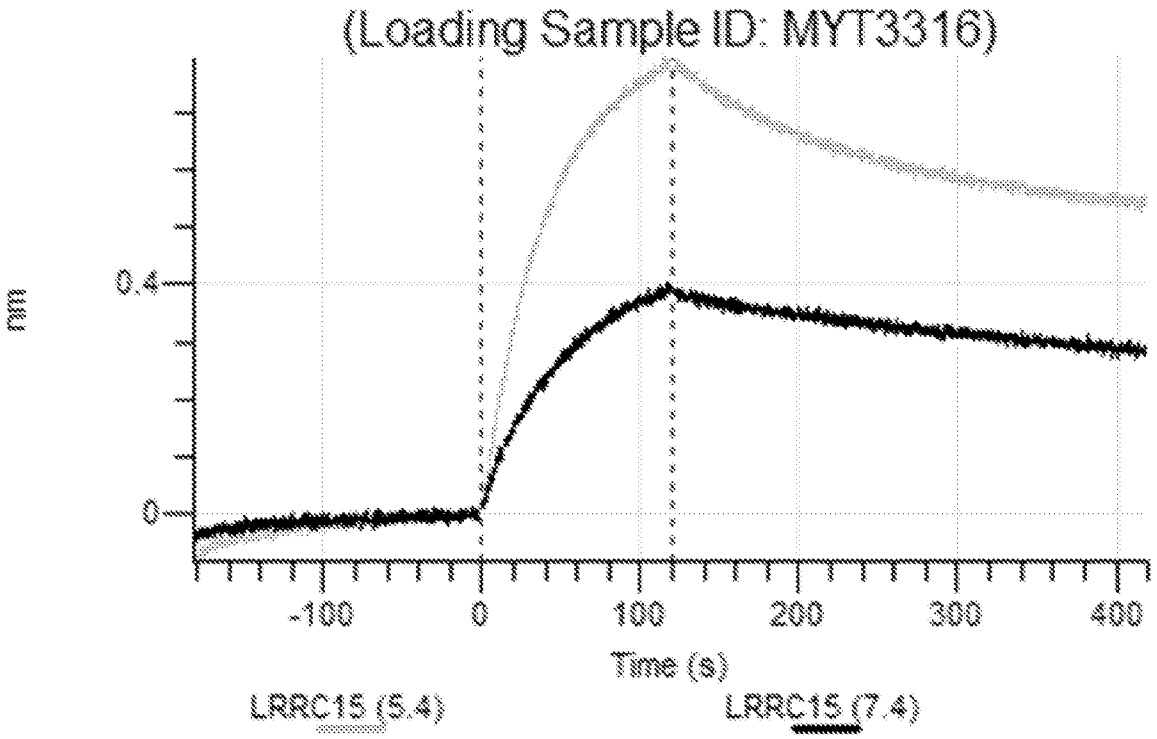

(Loading Sample ID: MYT3316)
nm
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14X

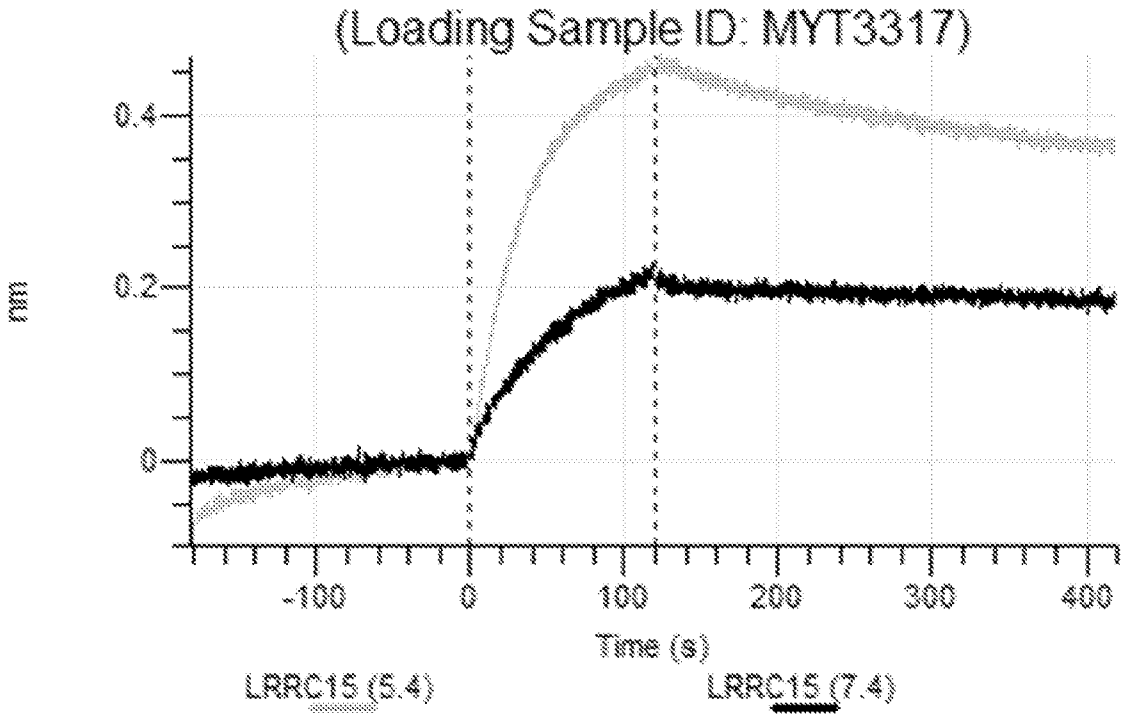

(Loading Sample ID: MYT3317)
0.4
0.2
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14Y

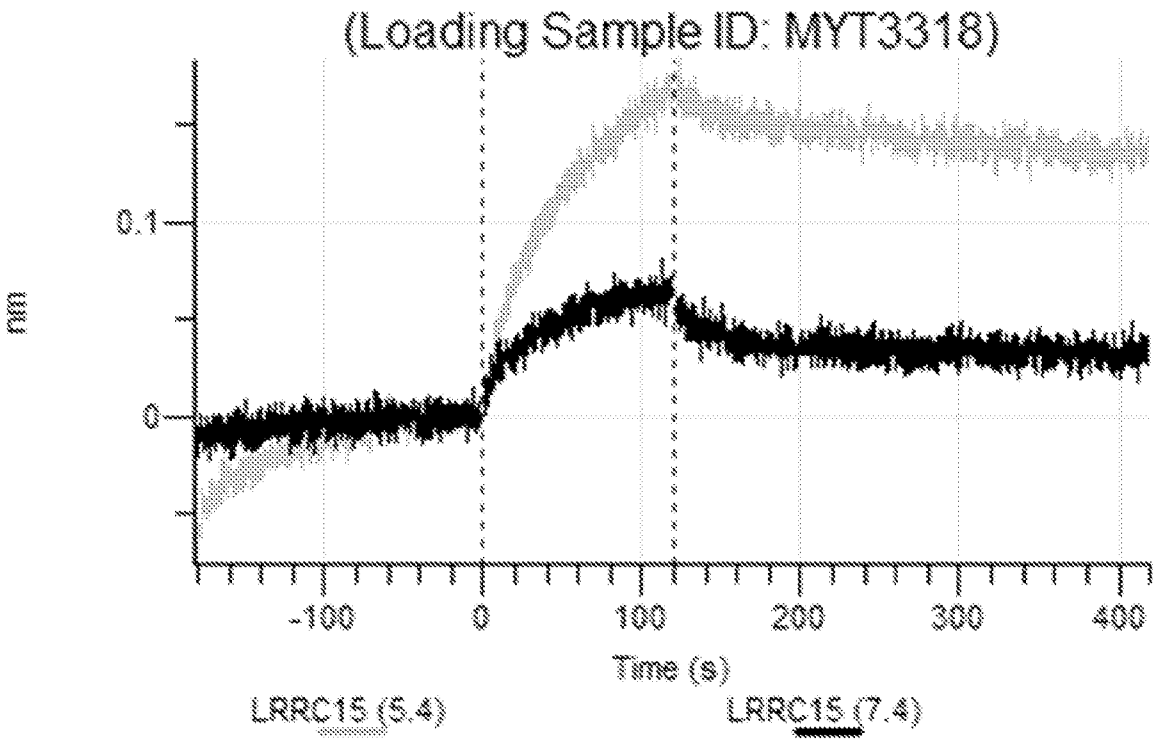

(Loading Sample ID: MYT3318)
nm
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14Z

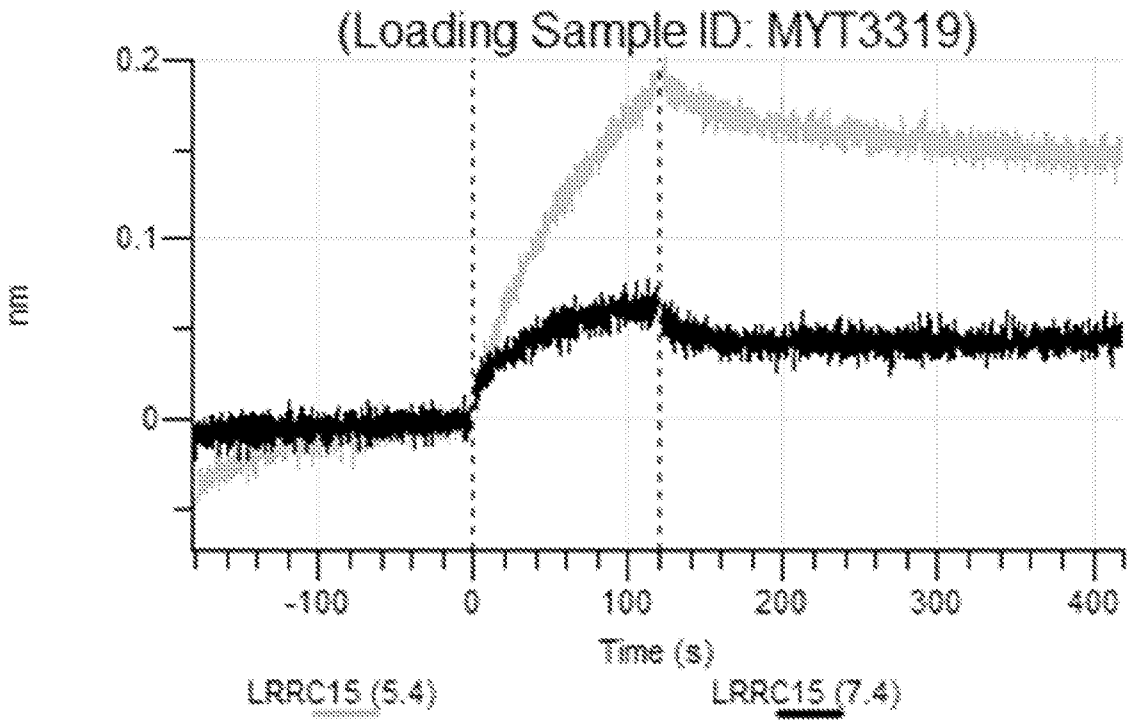

(Loading Sample ID: MYT3319)
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14AA

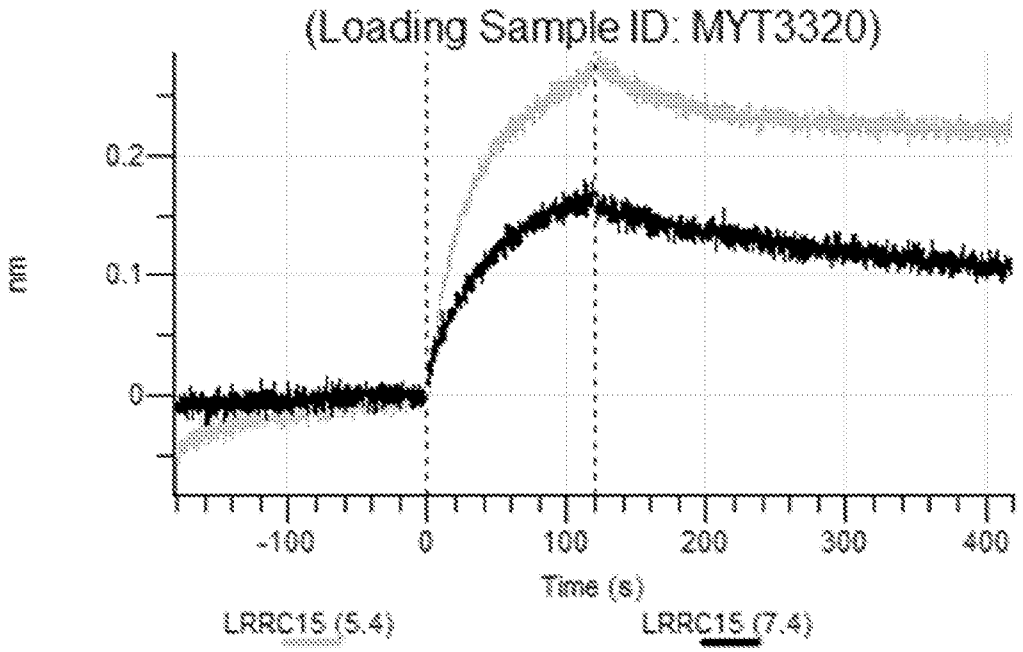

(Loading Sample ID: MYT3320)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14AB

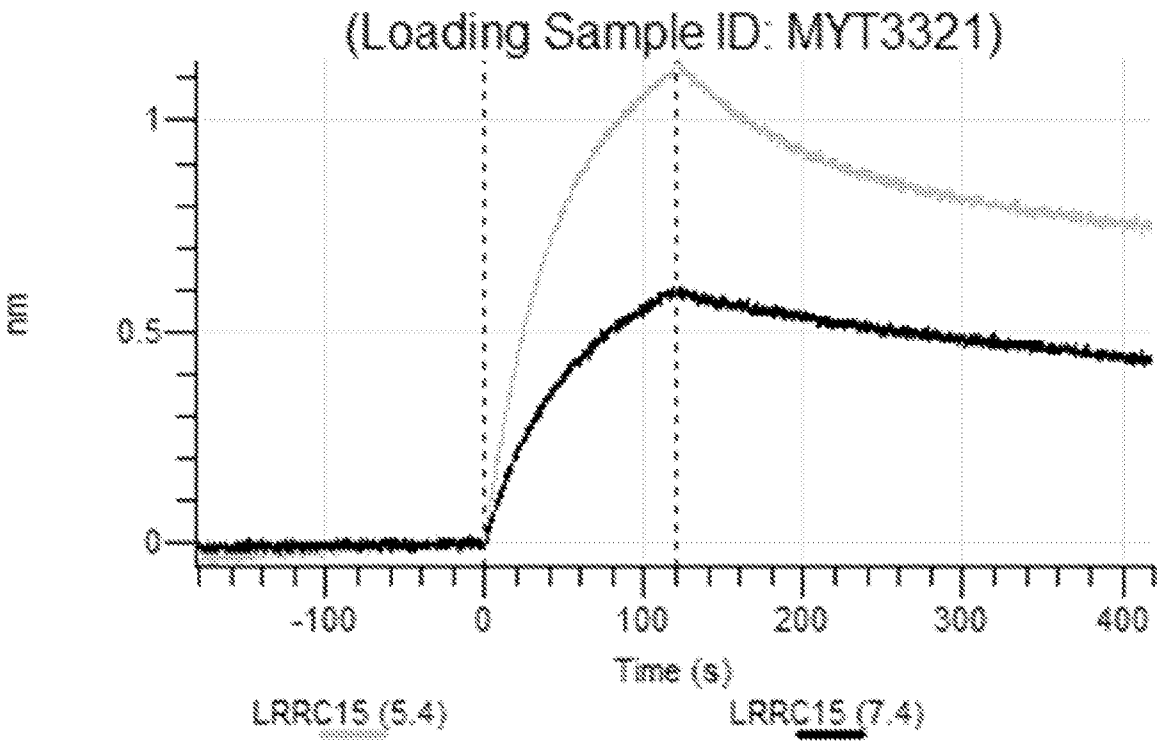

(Loading Sample ID: MYT3321)
nm
1
0.5
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14AC

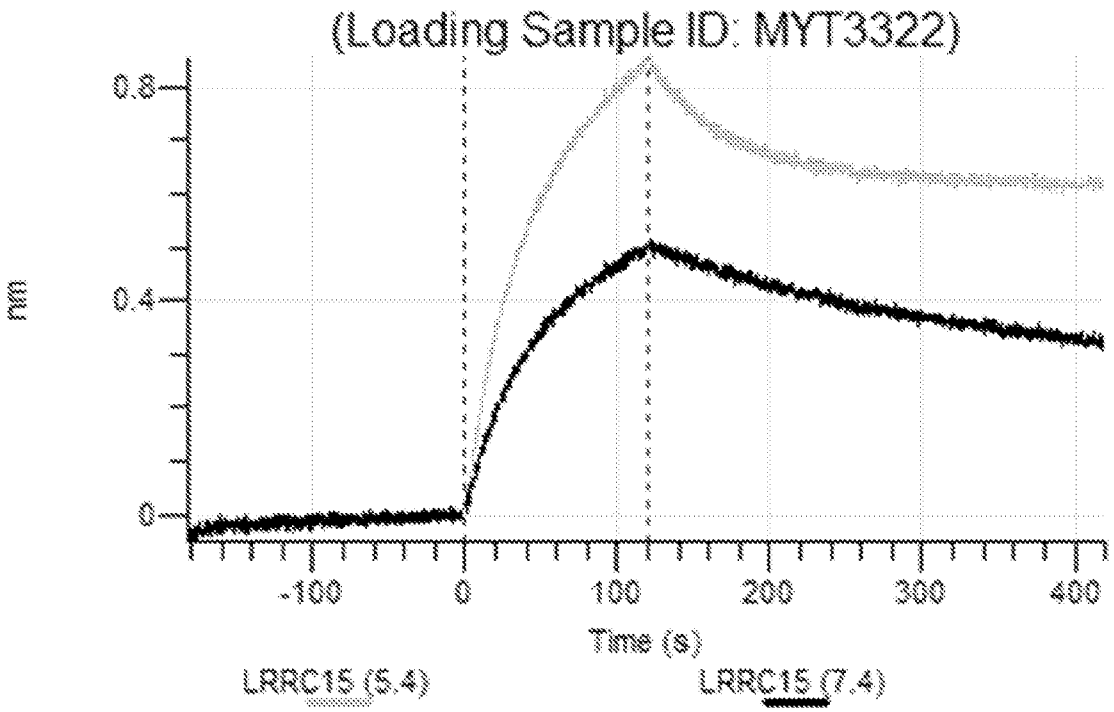

(Loading Sample ID: MYT3322)
nm
0.8
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14AD

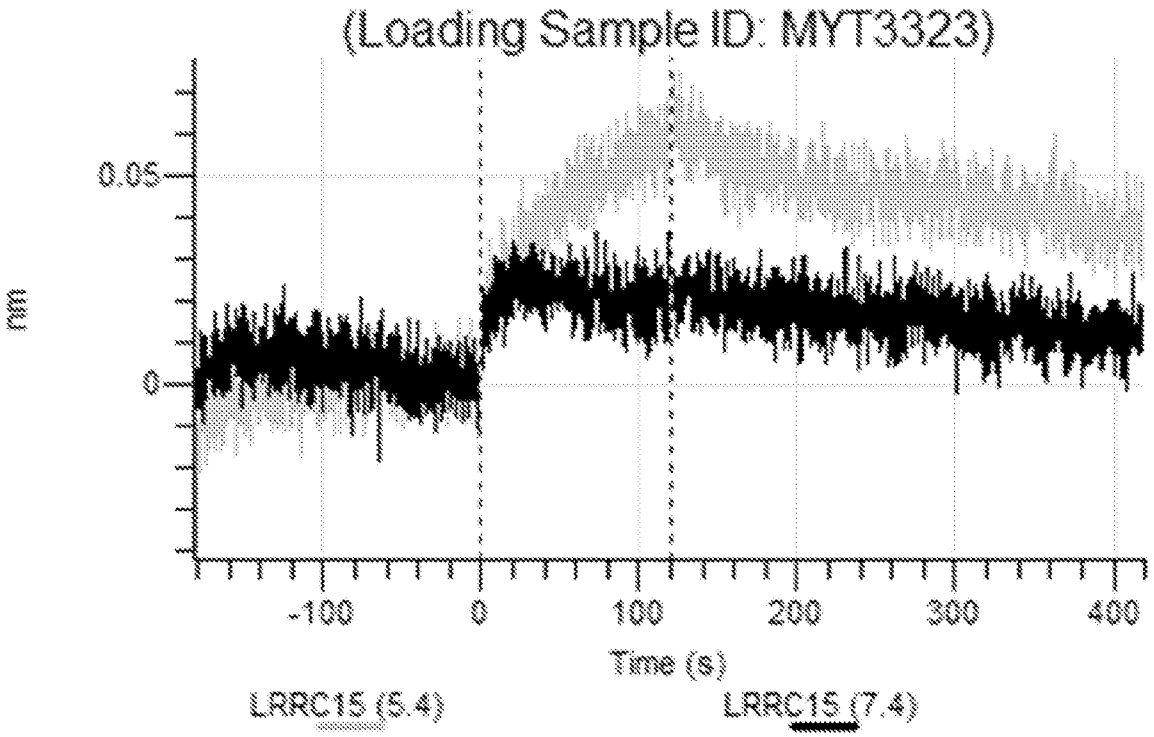

(Loading Sample ID: MYT3323)
0.05
0
mV
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14AE

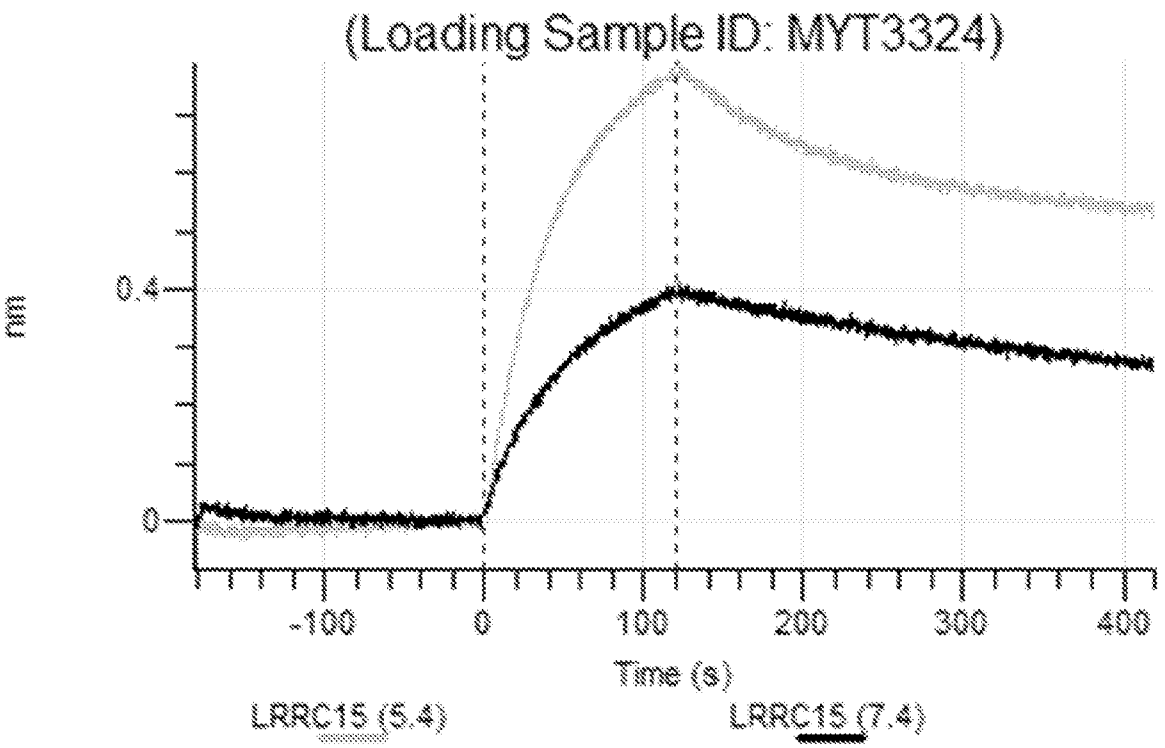

(Loading Sample ID: MYT3324)
nm
0.4
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 14AF

	Heavy	Light	CDRH1	CDRH2	CDRH3	CDRL1	CDRL2	CDRL3
MYT3252 (hu139.10)	84	85	86	87	88	89	90	91
MYT3293	84	132						
MYT3294	84	133						
MYT3295	84	134						
MYT3296	84	135						
MYT3297	84	136						
MYT3298	84	137						
MYT3299	84	138						
MYT3300	84	139						
MYT3301	84	140						
MYT3302	84	141						
MYT3303	84	142						
MYT3304	84	143						
MYT3305	84	144						
MYT3306	84	145						
MYT3307	84	146						
MYT3308	84	147						
MYT3309	84	148						
MYT3310	84	149						
MYT3311	84	150						
MYT3312	84	151						
MYT3313	84	152						
MYT3314	84	153						
MYT3315	84	154						
MYT3316	84	155						
MYT3317	84	156						
MYT3318	84	157						
MYT3319	84	158						
MYT3320	84	159						
MYT3321	84	160						
MYT3322	84	161						
MYT3323	84	162						
MYT3324	84	163						

FIG. 15

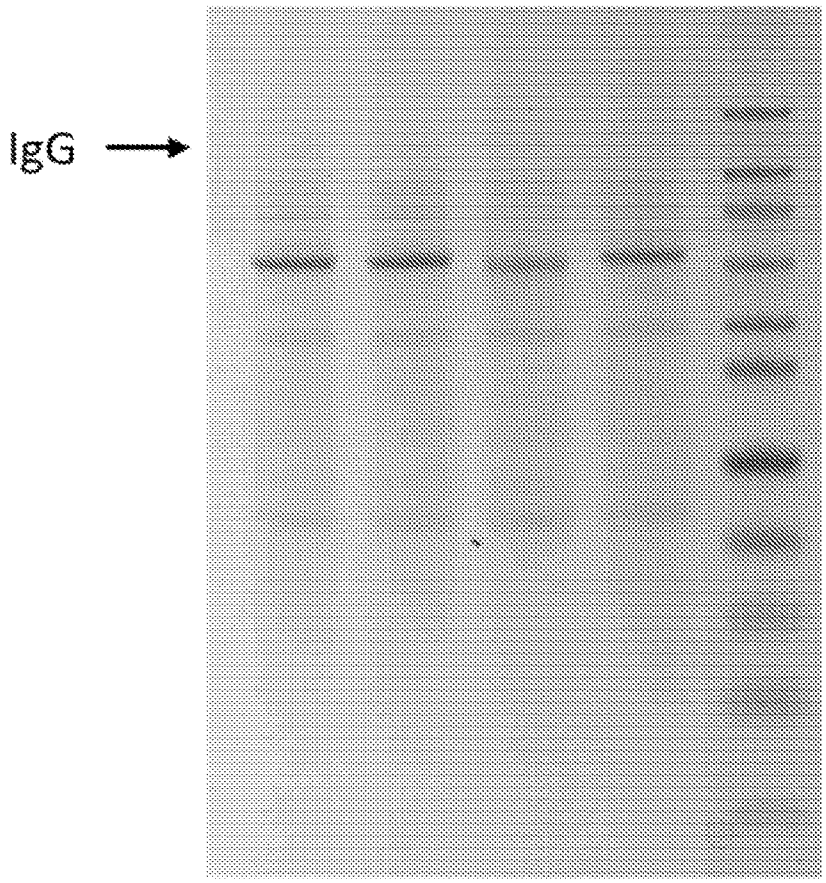


FIG. 16

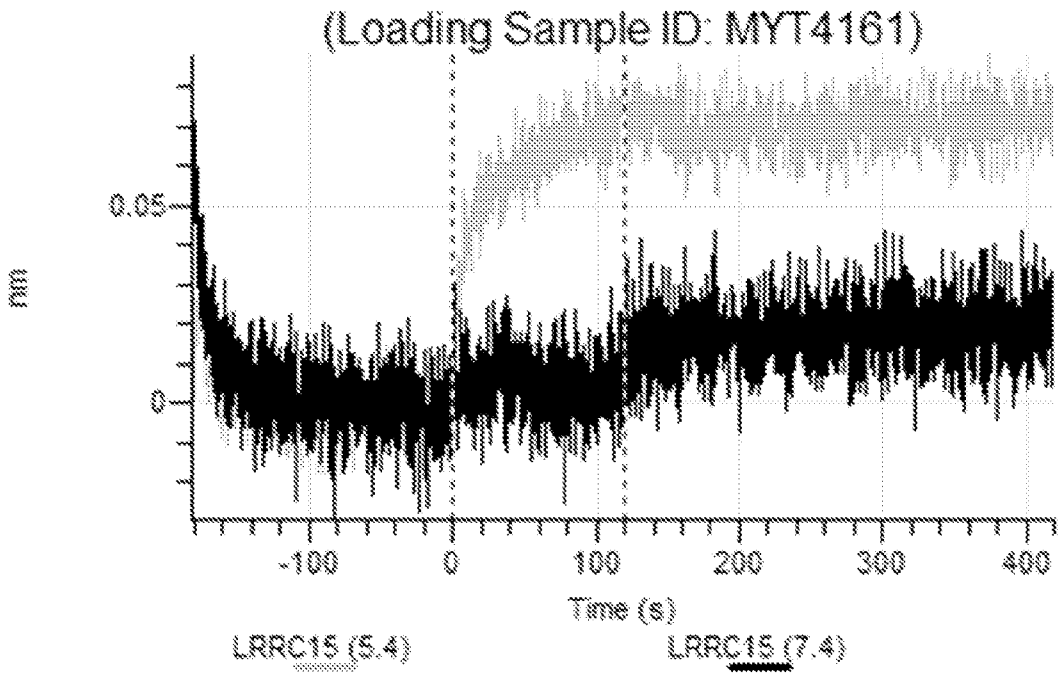

(Loading Sample ID: MYT4161)
nm
0.05
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 17A

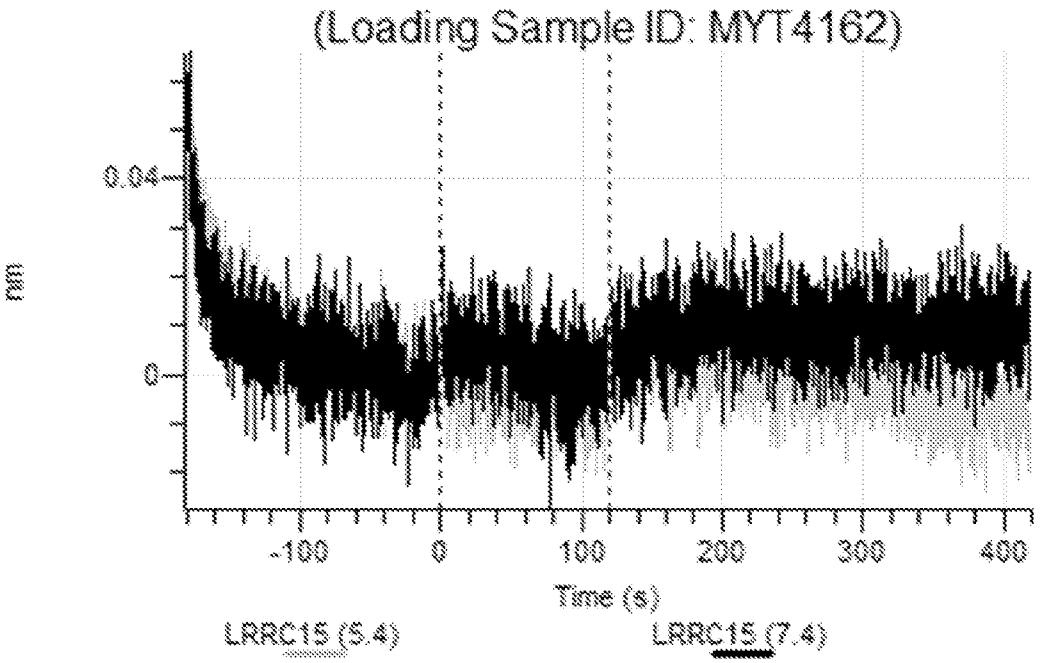

(Loading Sample ID: MYT4162)
0.04
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 17B

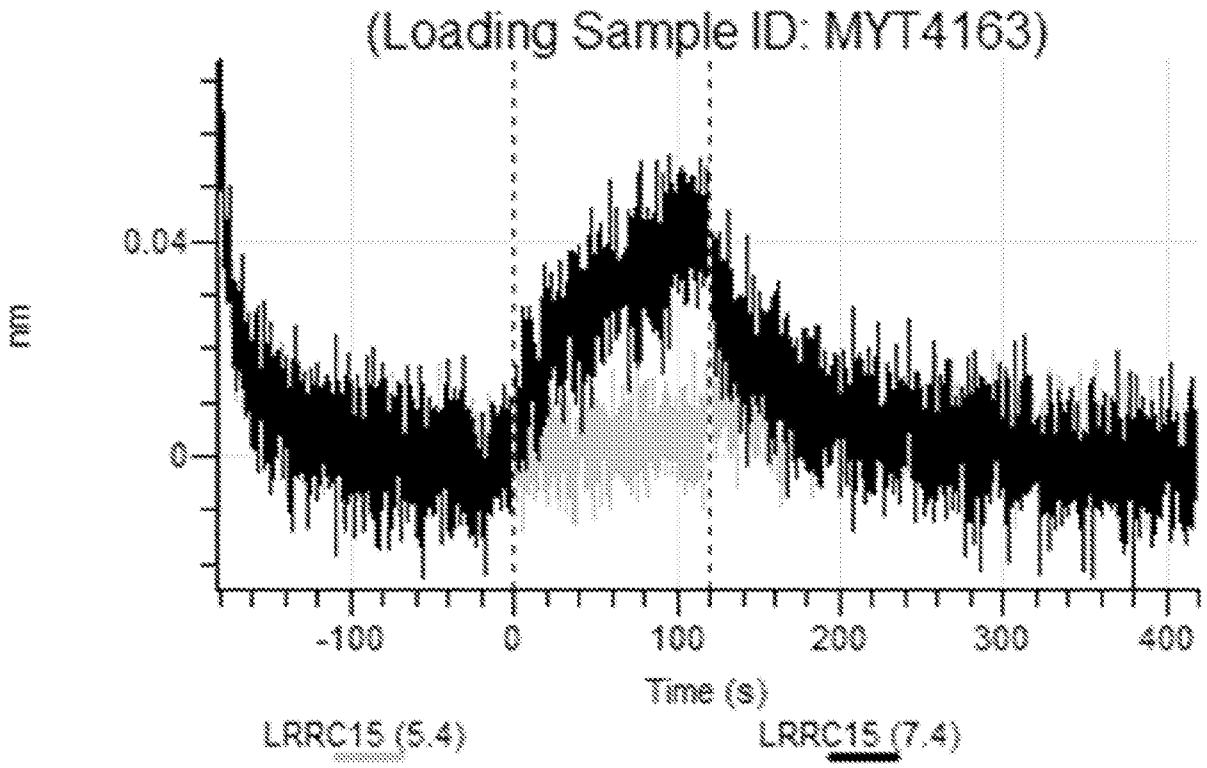

(Loading Sample ID: MYT4163)
nm
0.04
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 17C

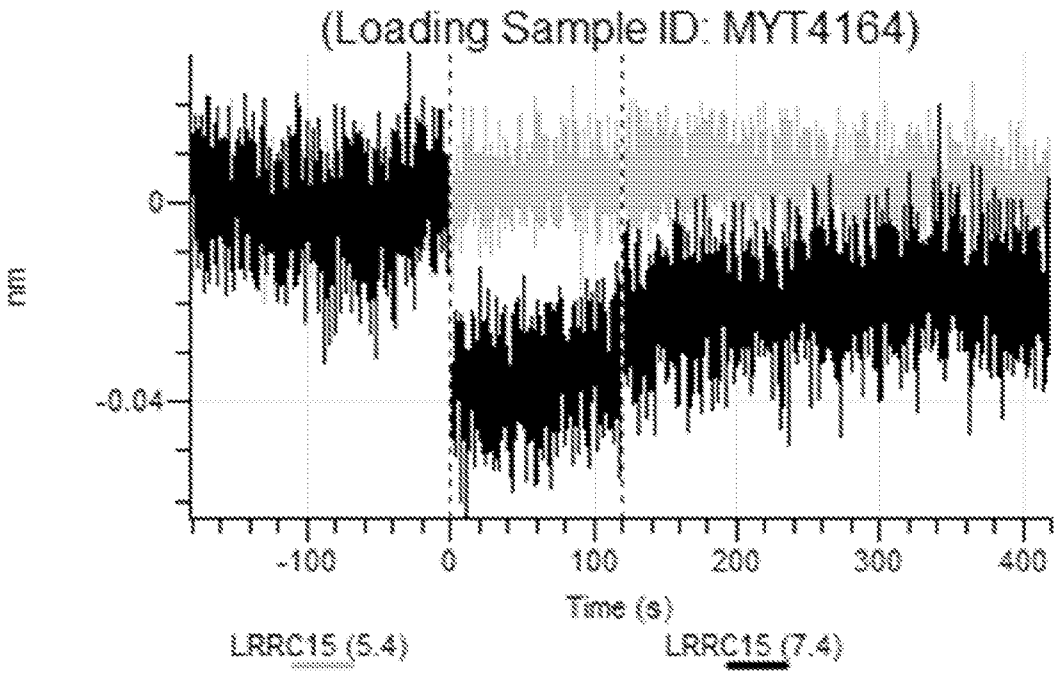

(Loading Sample ID: MYT4164)
nm
0
-0.04
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 17D

	Heavy	Light	CDRH1	CDRH2	CDRH3	CDRL1	CDRL2	CDRL3
MYT3252 (hu139.10)	84	85	86	87	88	89	90	91
MYT4161	164	85						
MYT4162	165	85						
MYT4163	166	85						
MYT4164	167	85						

FIG. 18

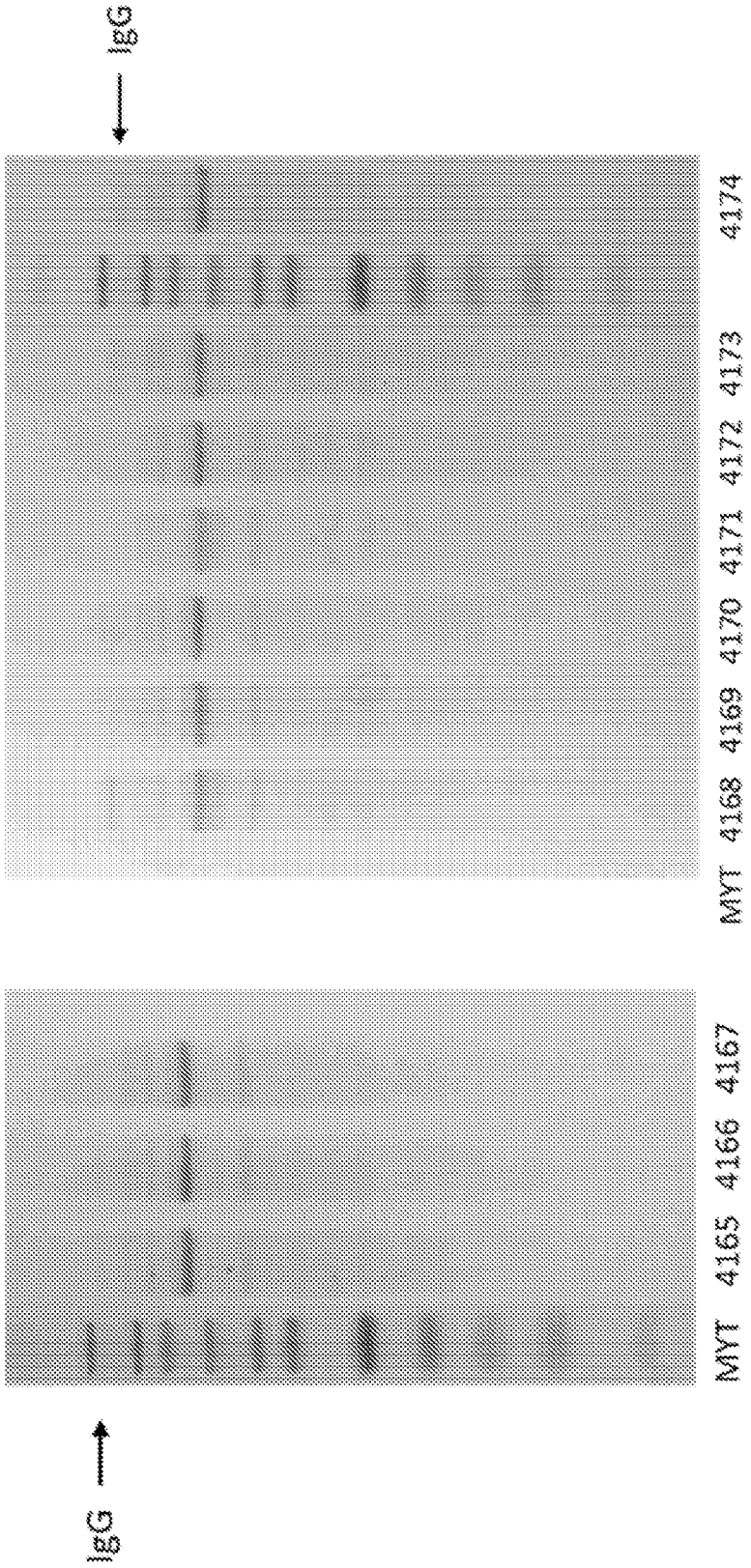

IgG
MYT 4168 4169 4170 4171 4172 4173 4174
MYT 4165 4166 4167
IgG

FIG. 19

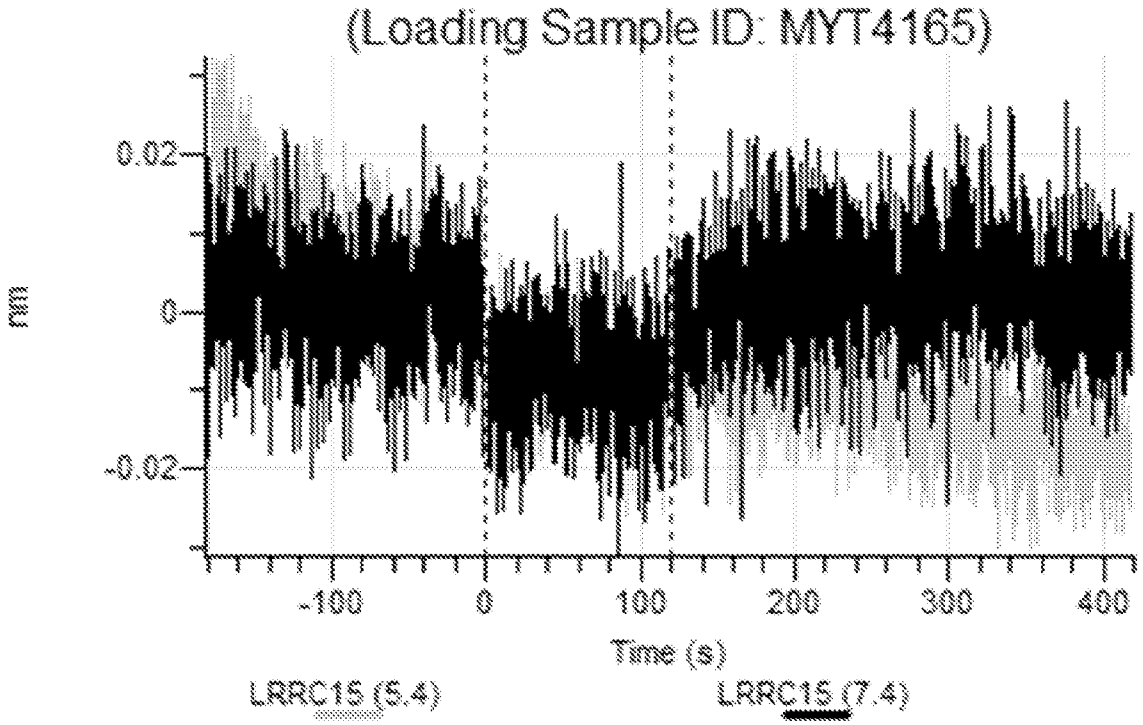

(Loading Sample ID: MYT4165)
0.02
0
-0.02
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 20A

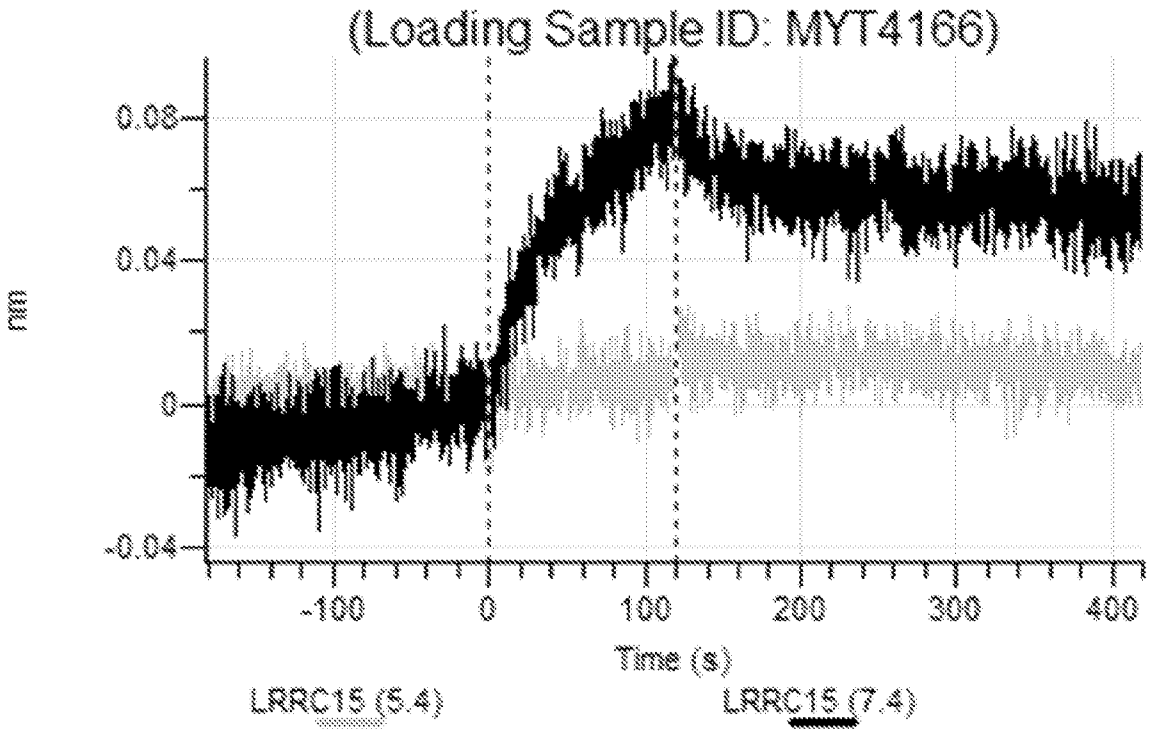

(Loading Sample ID: MYT4166)
0.08
0.04
0
-0.04
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 20B

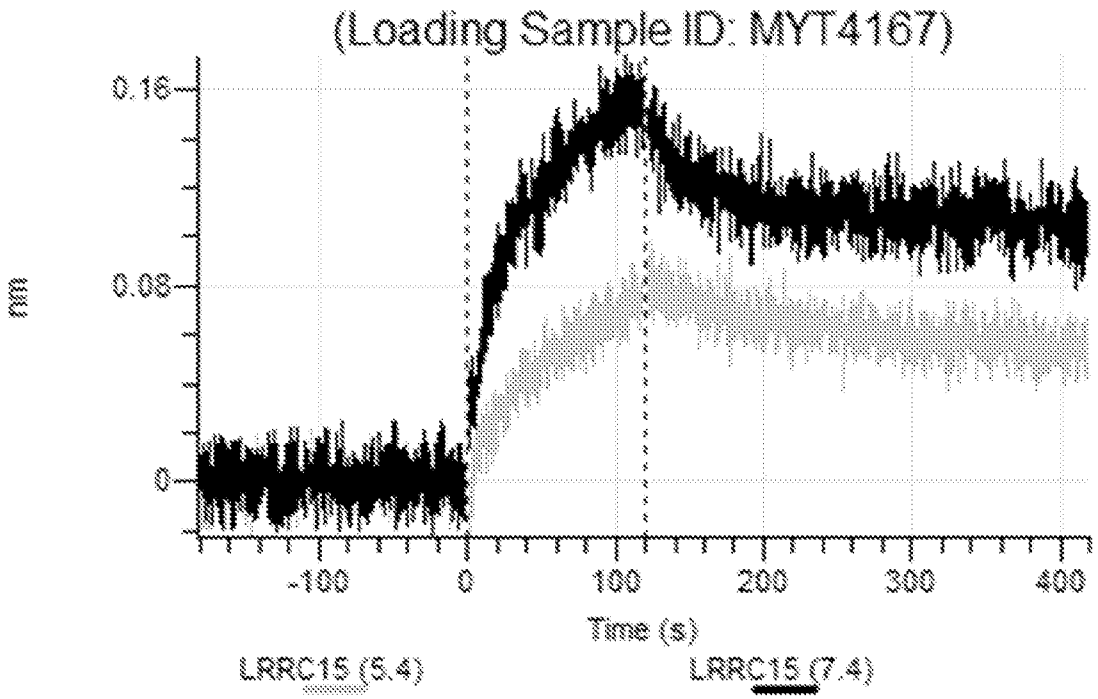

(Loading Sample ID: MYT4167)
0.16
0.08
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 20C

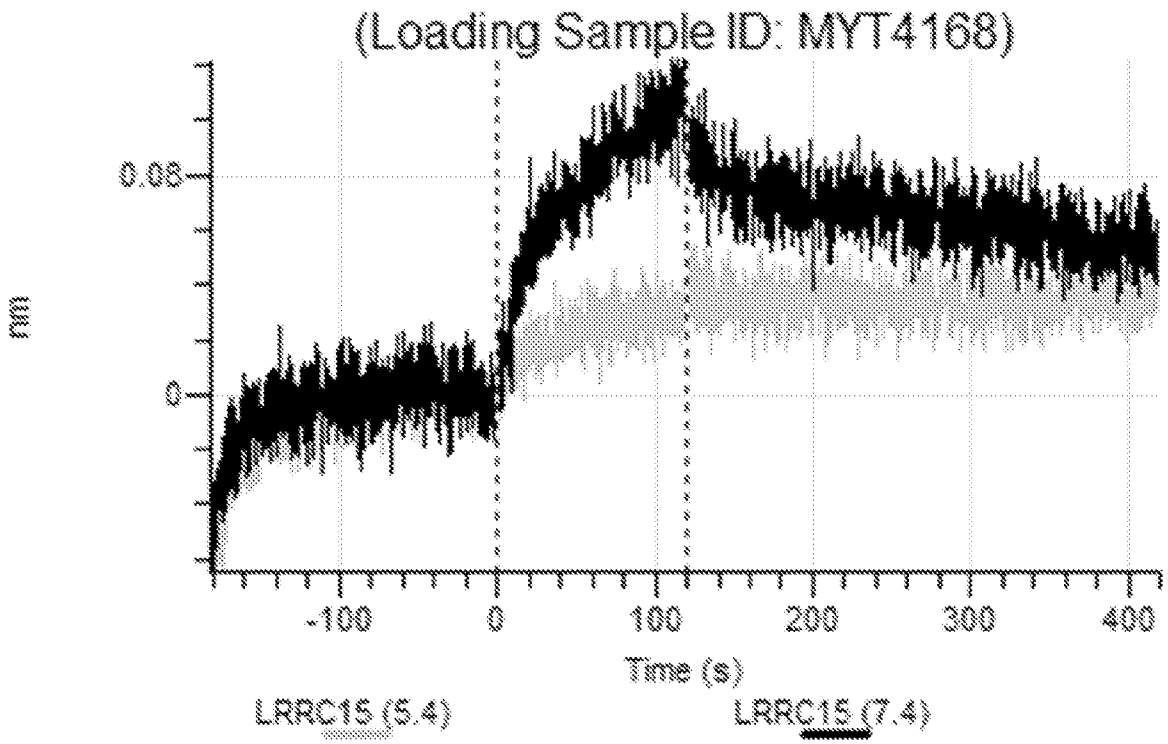

(Loading Sample ID: MYT4168)
nm
0.08
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 20D

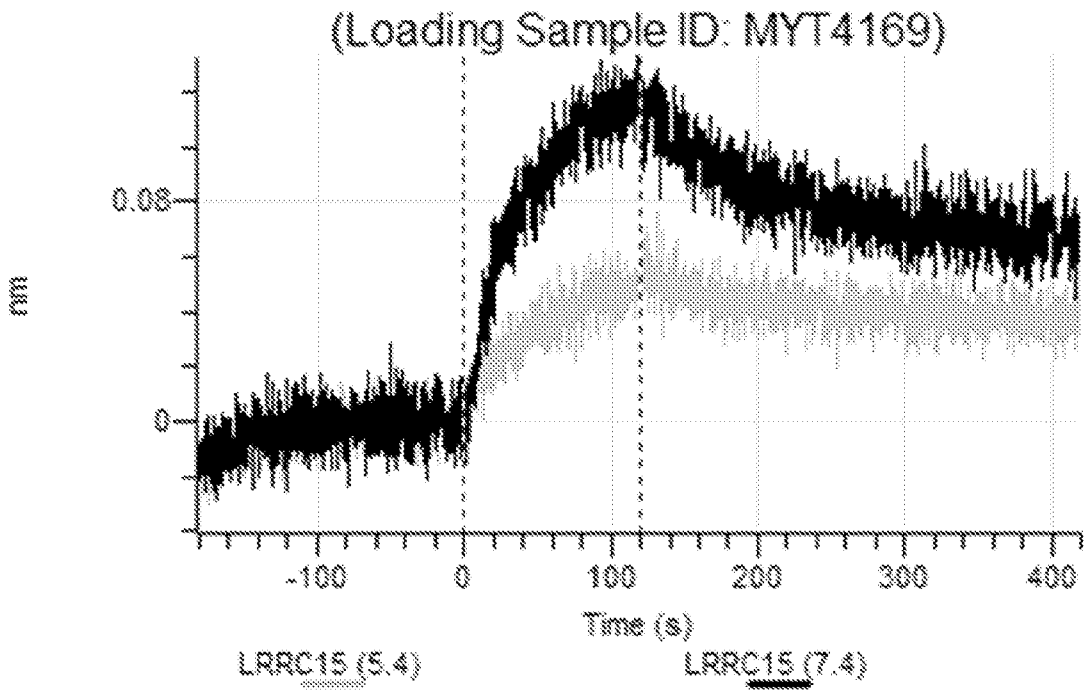

(Loading Sample ID: MYT4169)
0.08
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 20E

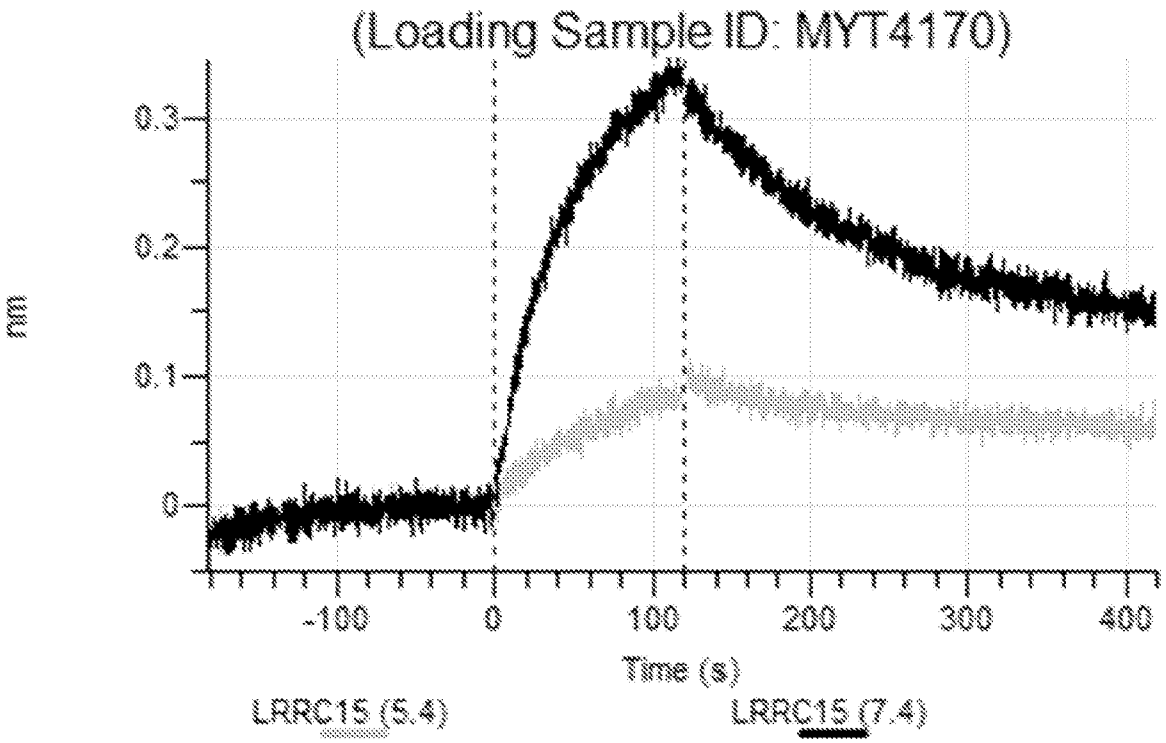

(Loading Sample ID: MYT4170)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 20F

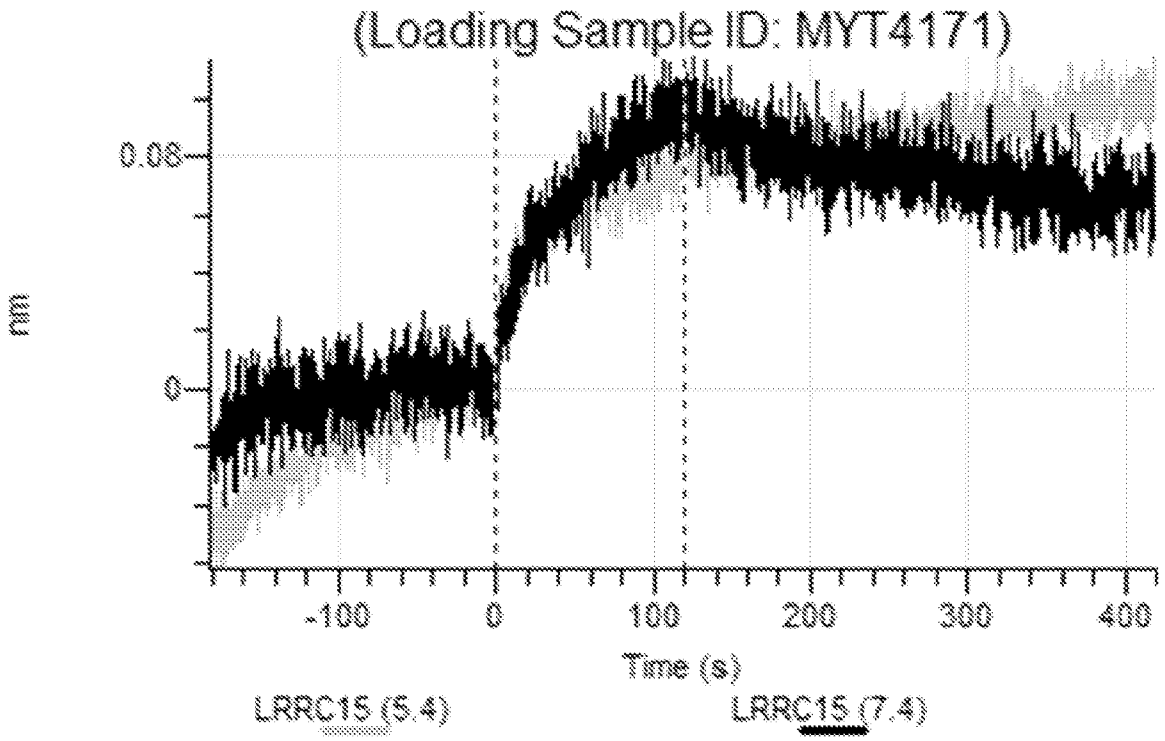

(Loading Sample ID: MYT4171)
0.08
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 20G

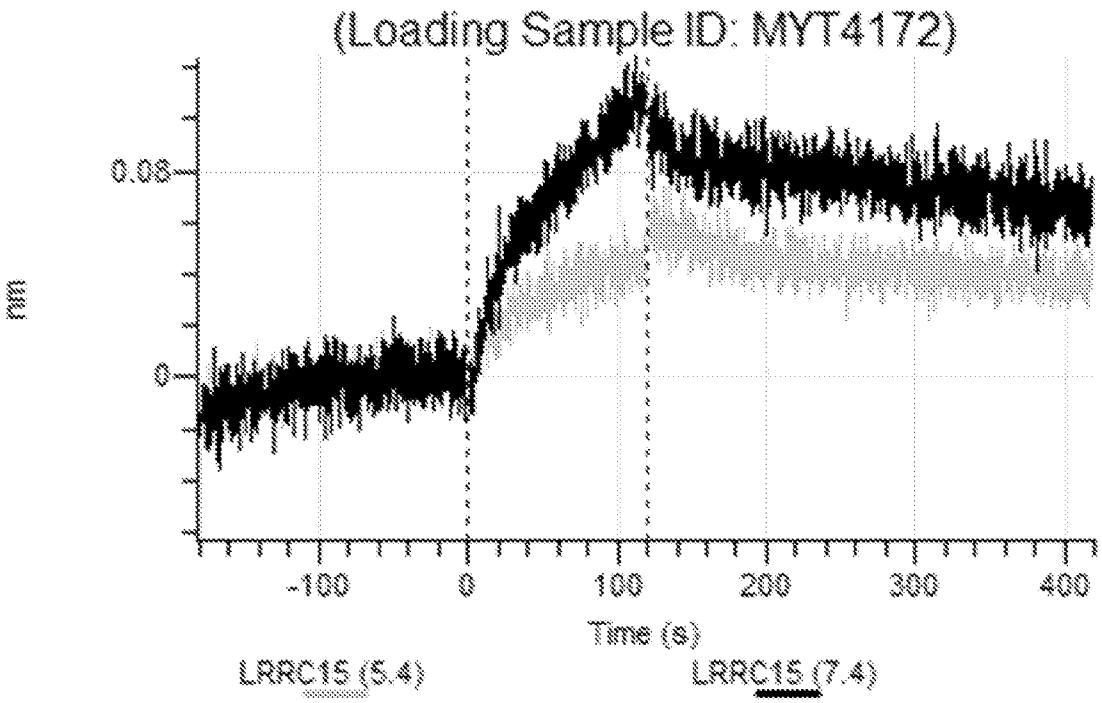

(Loading Sample ID: MYT4172)
0.08
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 20H

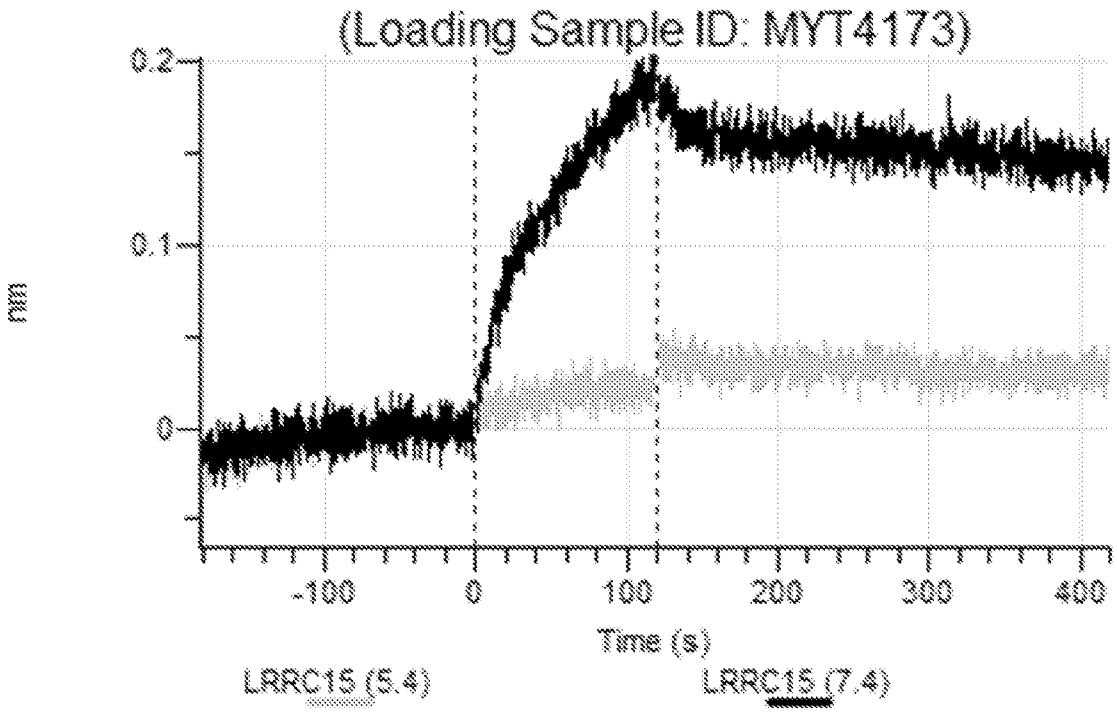

(Loading Sample ID: MYT4173)
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 20I

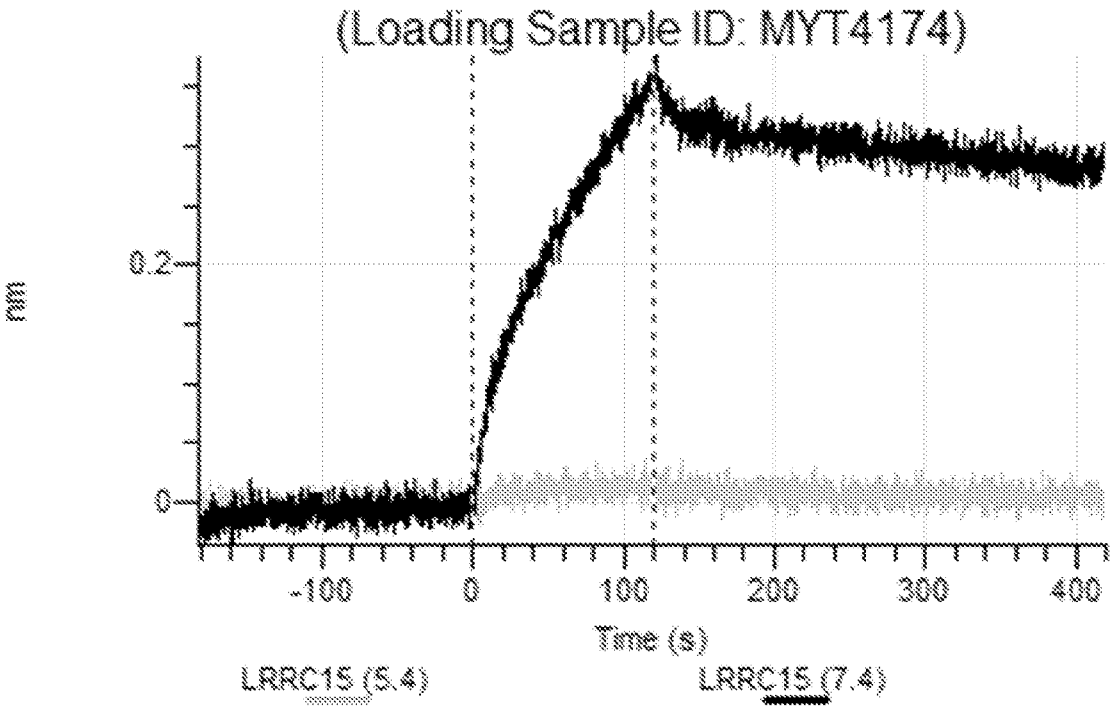

(Loading Sample ID: MYT4174)
nm
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 20J

	Heavy	Light	CDRH1	CDRH2	CDRH3	CDRL1	CDRL2	CDRL3
MYT3252 (hu139.10)	84	85	86	87	88	89	90	91
MYT4165	84	168						
MYT4166	84	169						
MYT4167	84	170						
MYT4168	84	171						
MYT4169	84	172						
MYT4170	84	173						
MYT4171	84	174						
MYT4172	84	175						
MYT4173	84	176						
MYT4174	84	177						

FIG. 21

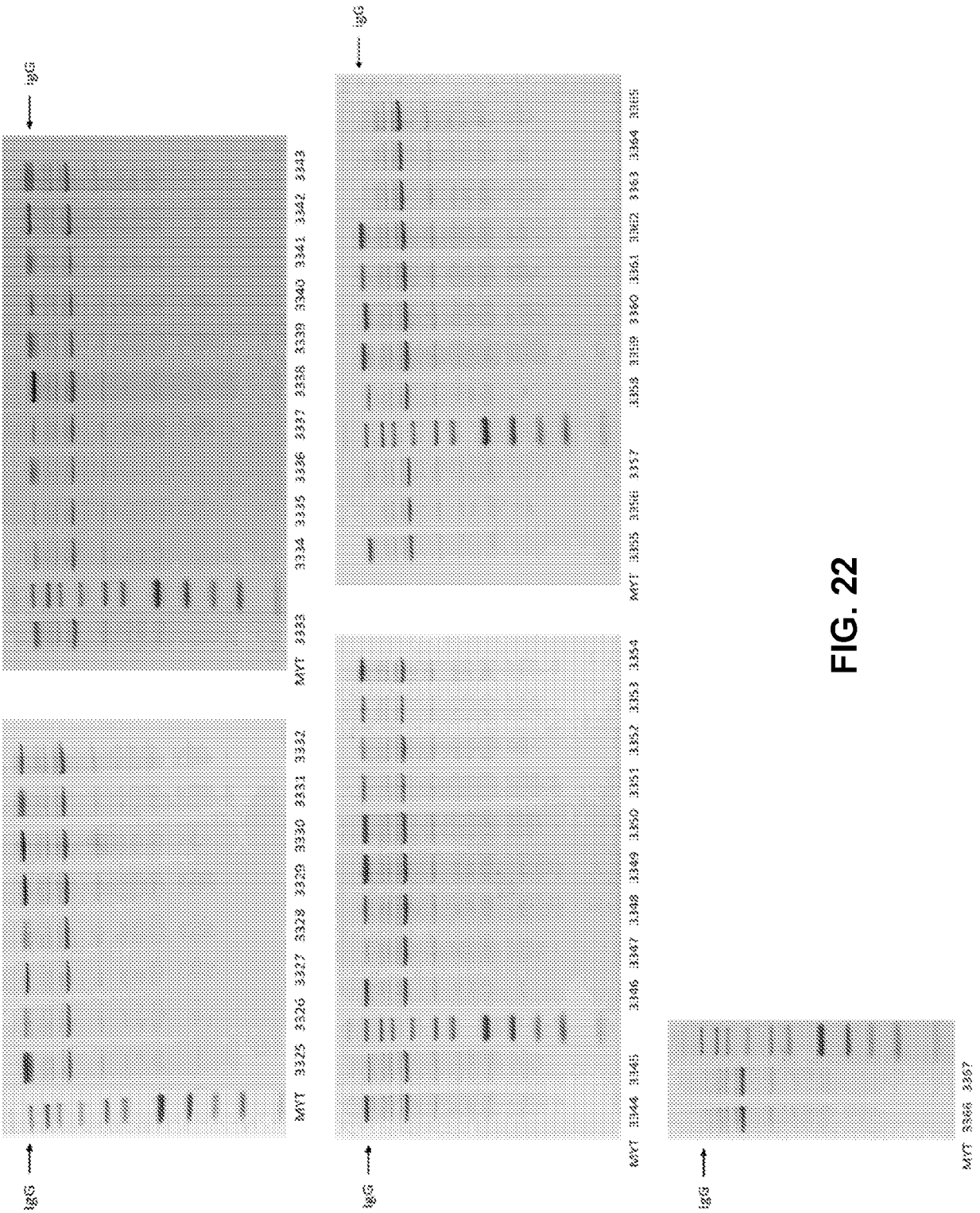

IgG
MYT 3325 3326 3327 3328 3329 3330 3331 3332
MYT 3333 3334 3335 3336 3337 3338 3339 3340 3341 3342 3343
IgG
MYT 3344 3345 3346 3347 3348 3349 3350 3351 3352 3353 3354
MYT 3355 3356 3357 3358 3359 3360 3361 3362 3363 3364 3365
IgG
MYT 3366 3367

FIG. 22

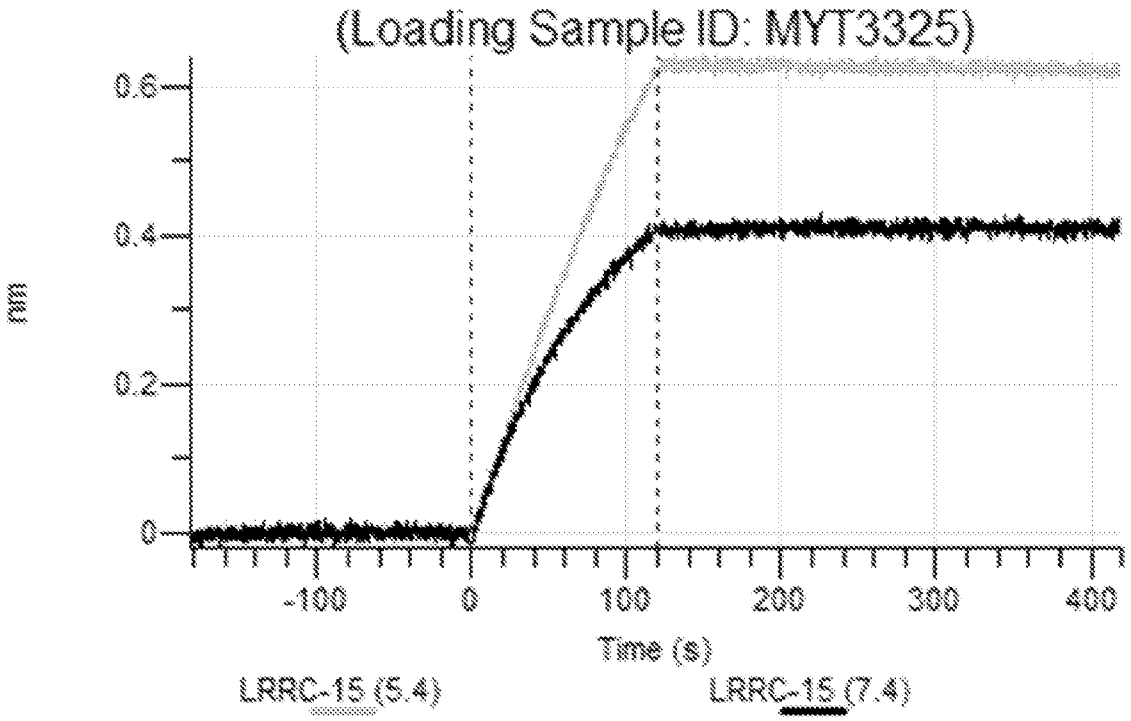

(Loading Sample ID: MYT3325)
nm
0.6
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23A

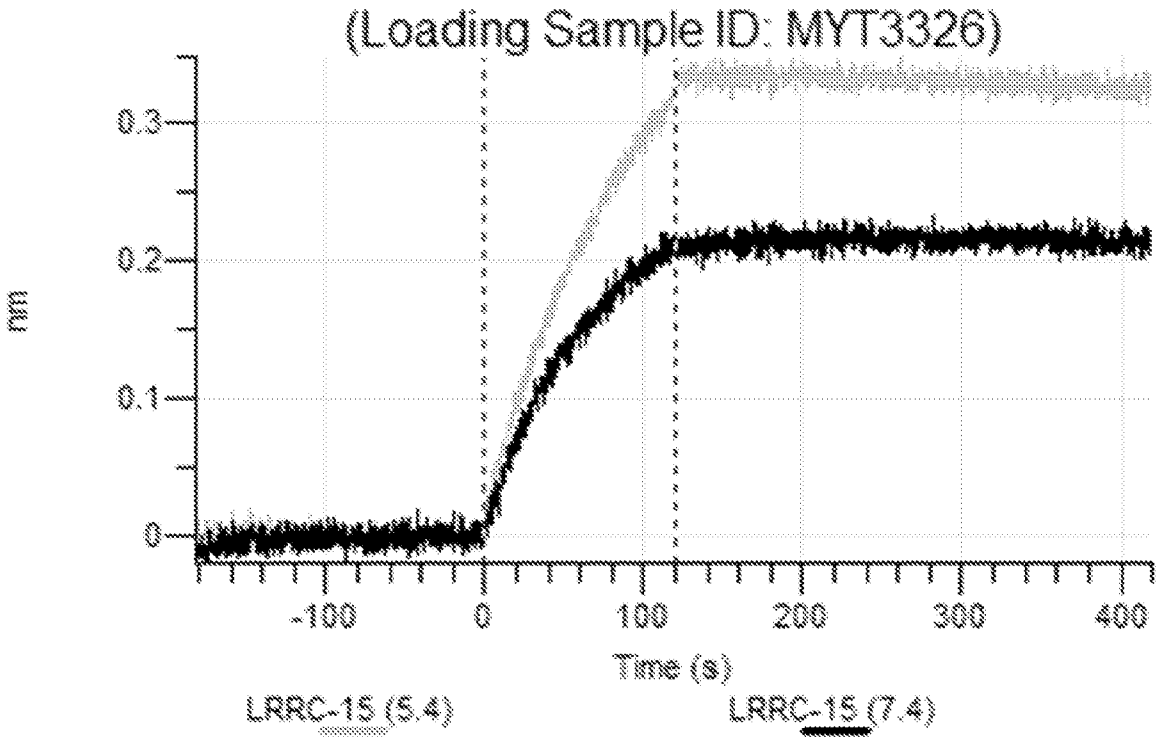

(Loading Sample ID: MYT3326)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23B

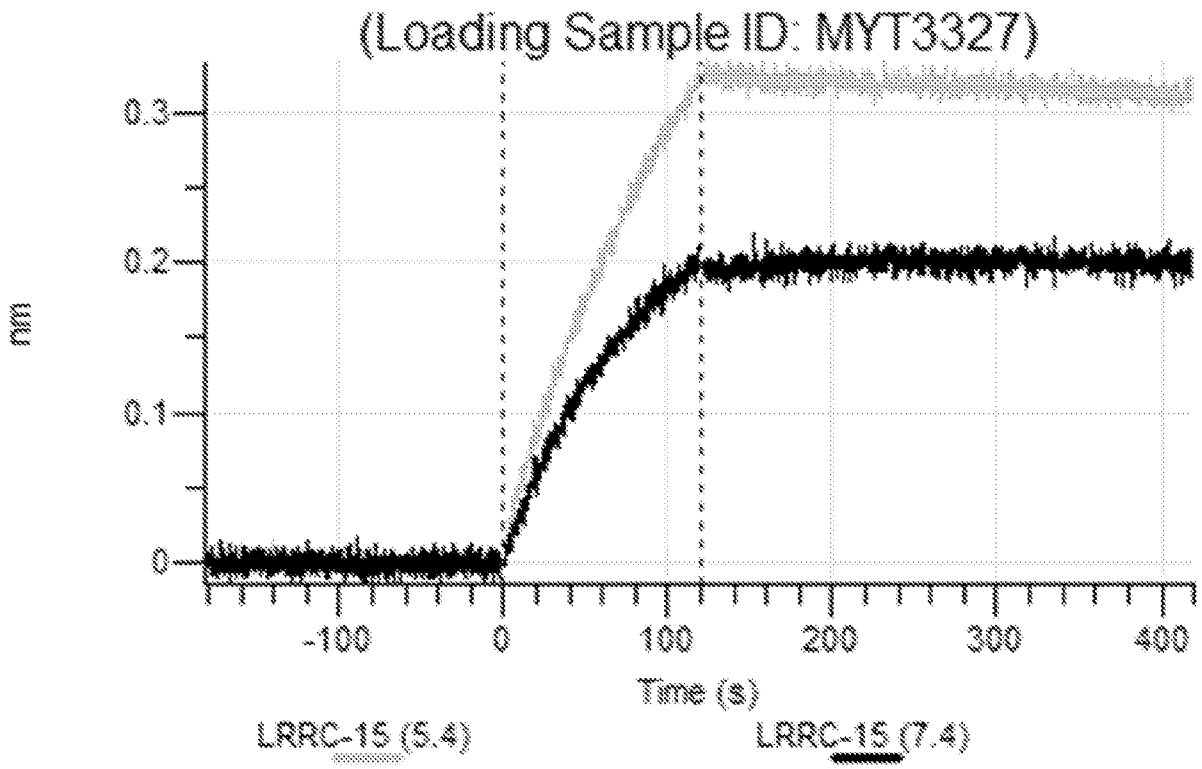

(Loading Sample ID: MYT3327)
0.3
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23C

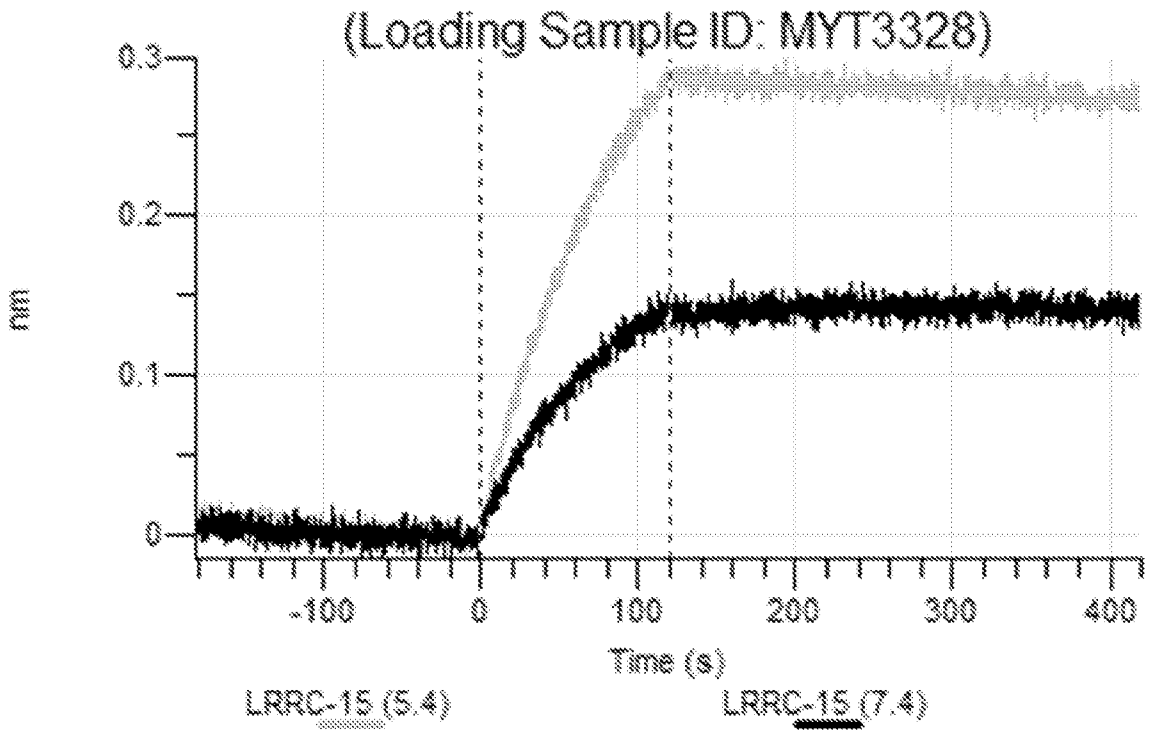

(Loading Sample ID: MYT3328)
0.3
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23D

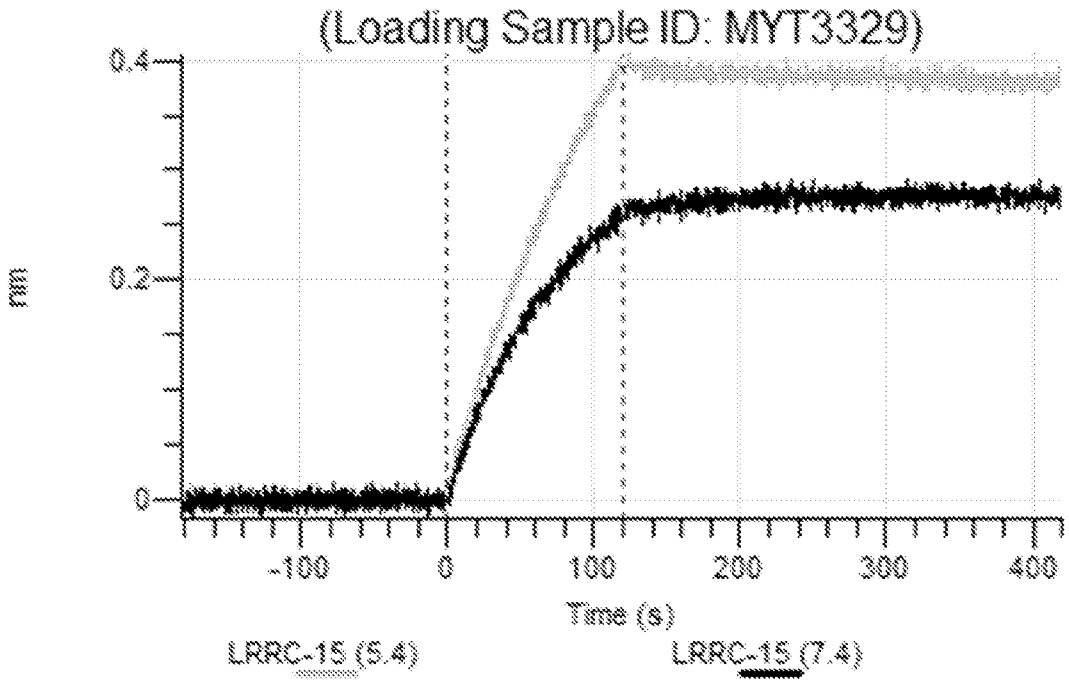

(Loading Sample ID: MYT3329)
0.4
0.2
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23E

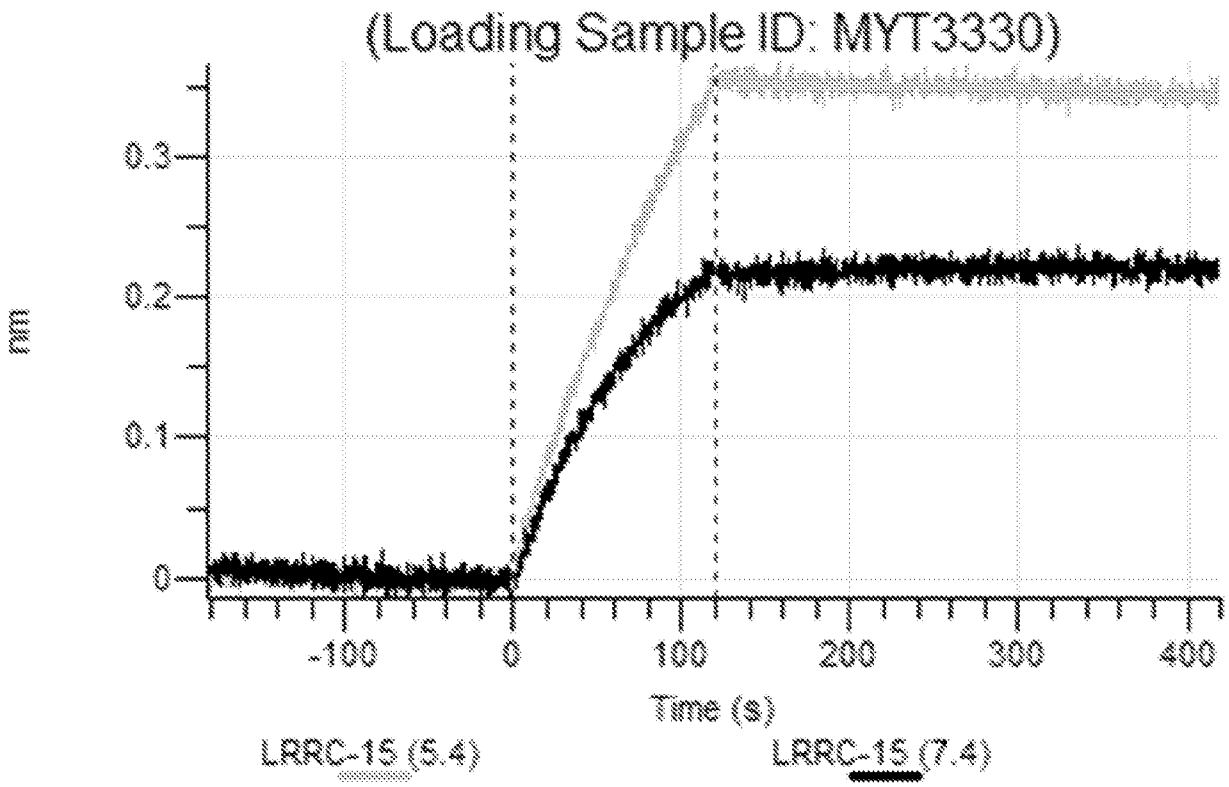

(Loading Sample ID: MYT3330)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23F

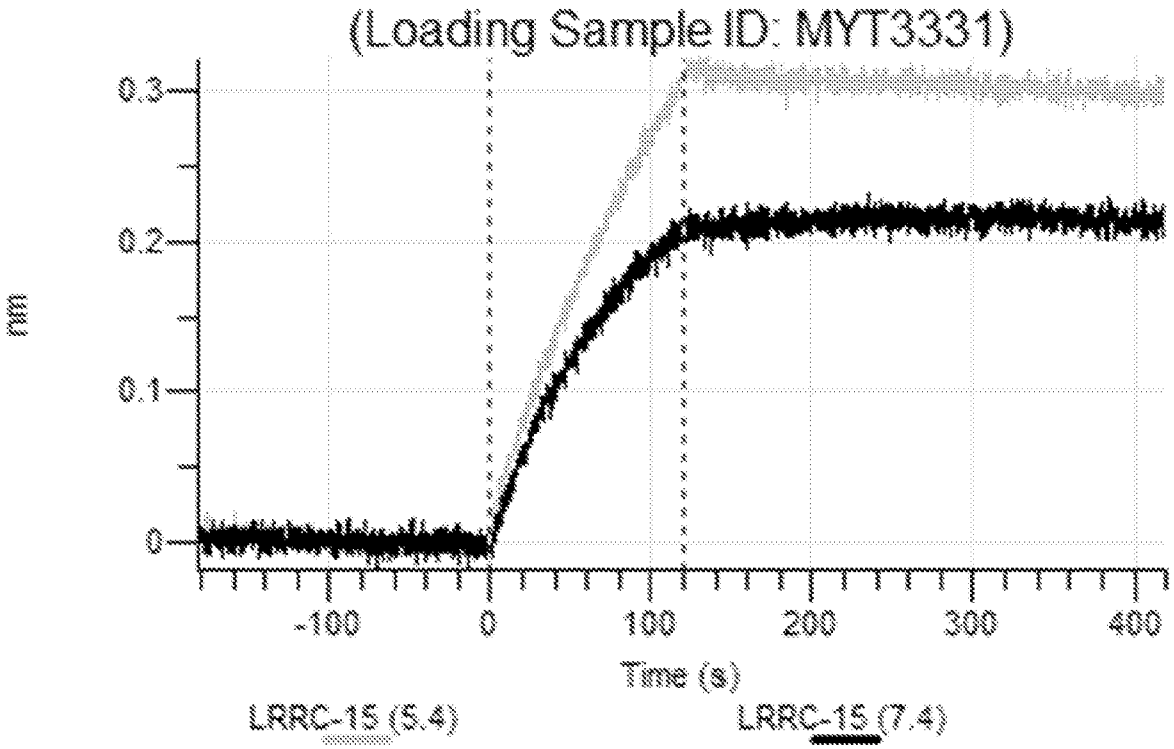

(Loading Sample ID: MYT3331)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23G

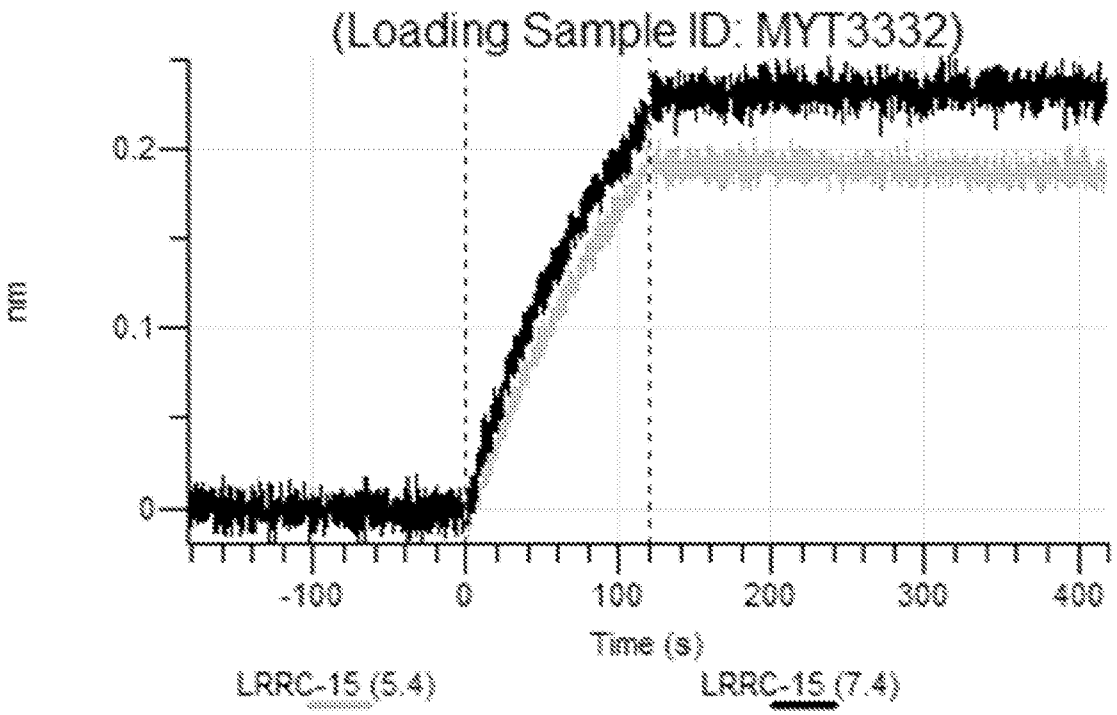

(Loading Sample ID: MYT3332)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23H

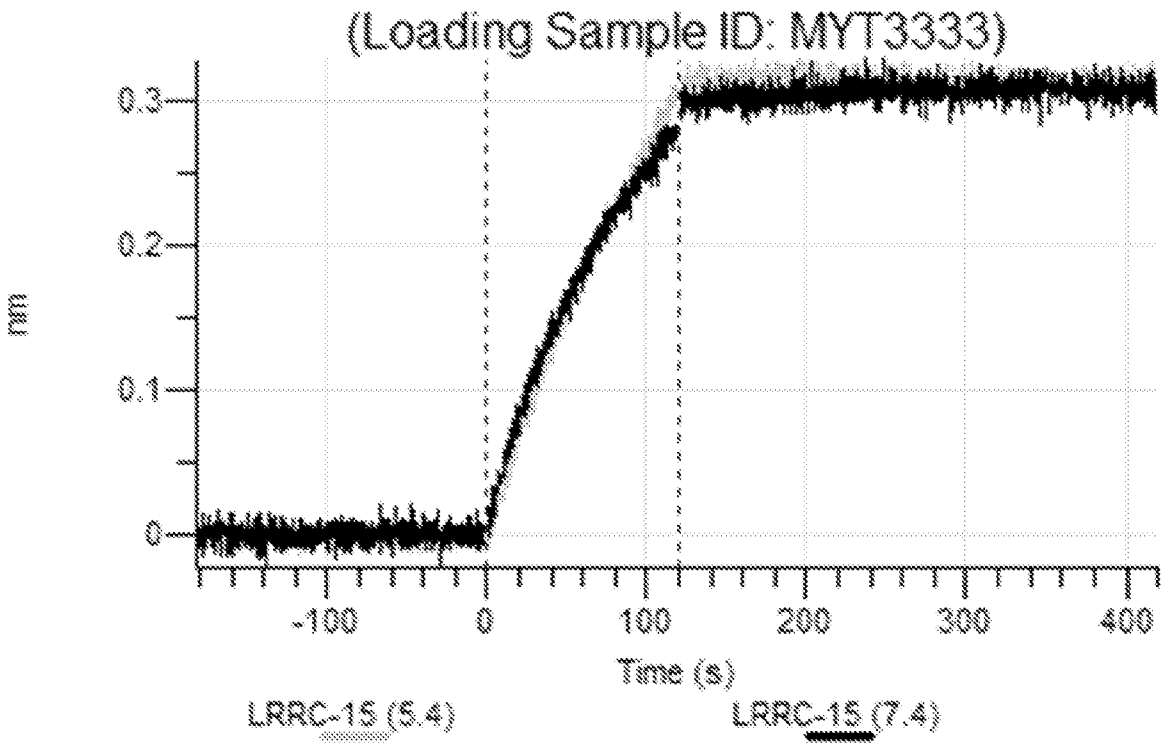

(Loading Sample ID: MYT3333)
0.3
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23I

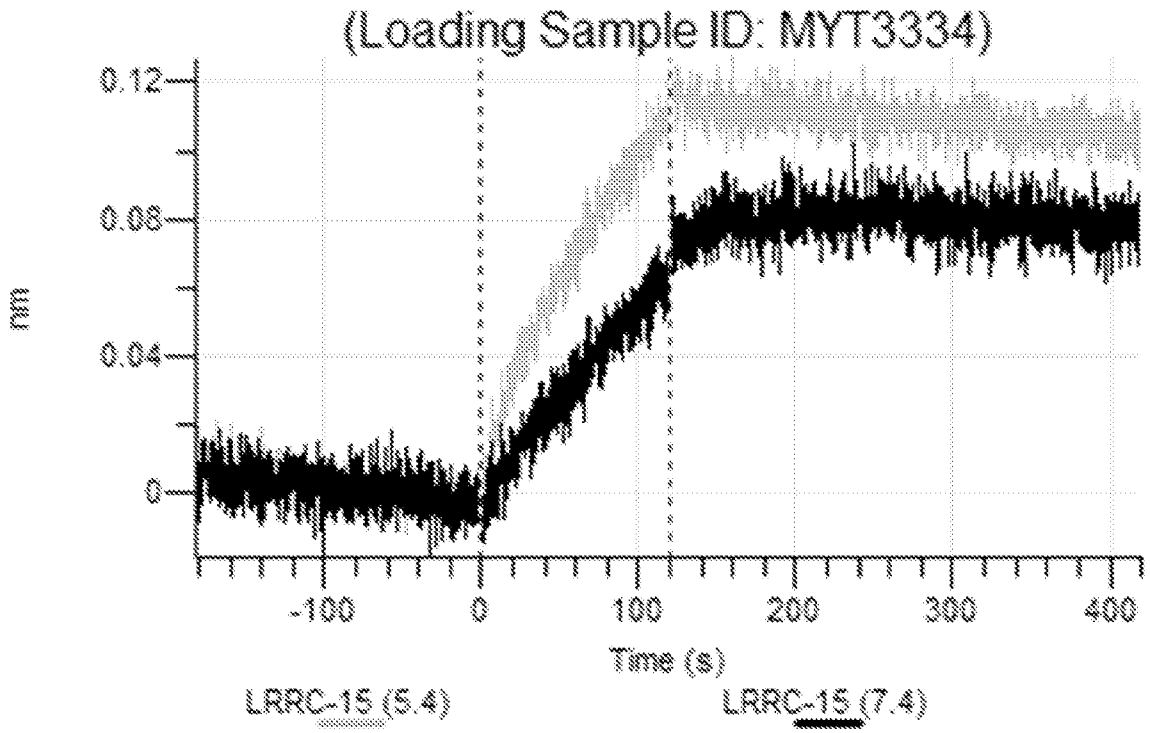

(Loading Sample ID: MYT3334)
0.12
0.08
0.04
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23J

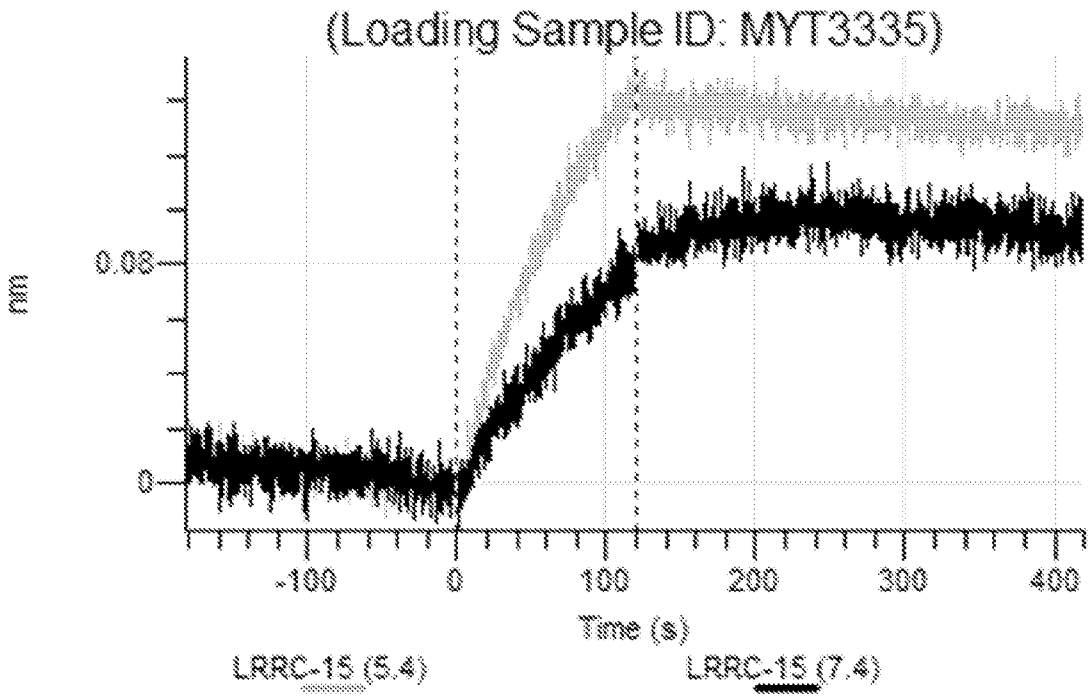

(Loading Sample ID: MYT3335)
nm
0.08
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23K

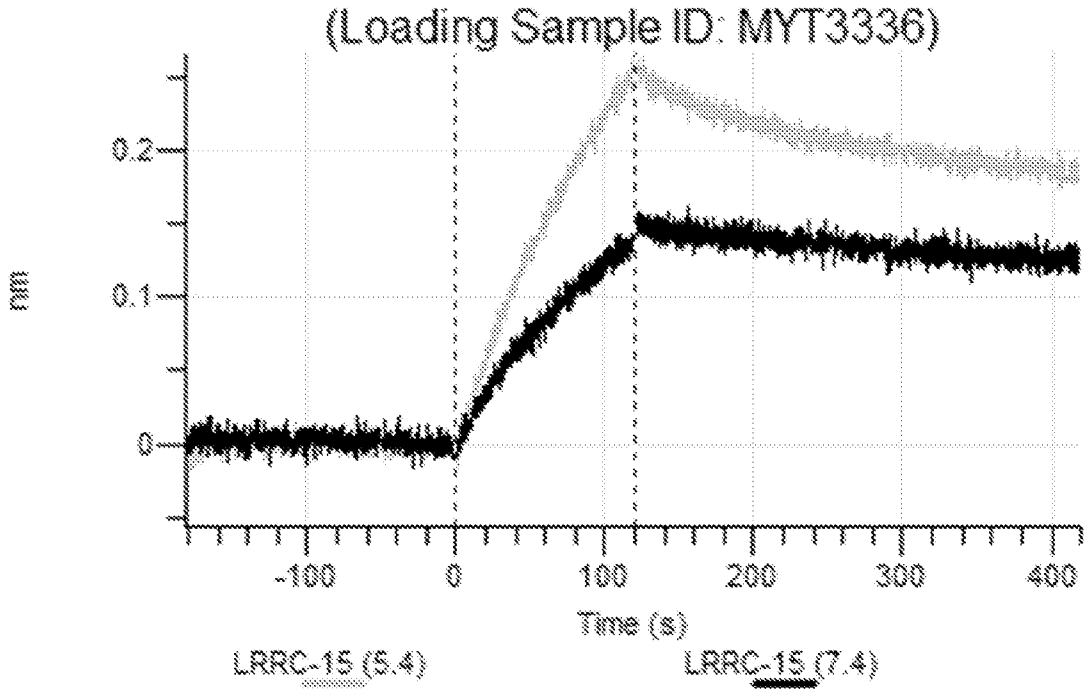

(Loading Sample ID: MYT3336)
0.2
0.1
0
(nm)
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23L

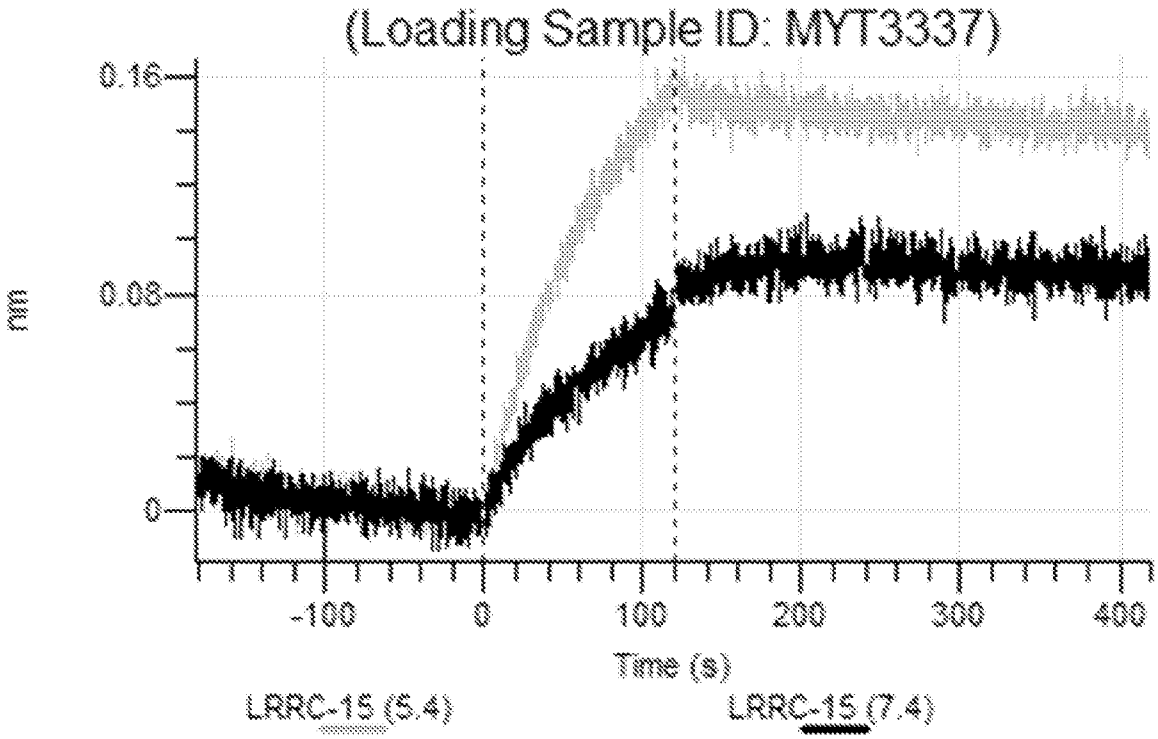

(Loading Sample ID: MYT3337)
0.16
0.08
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23M

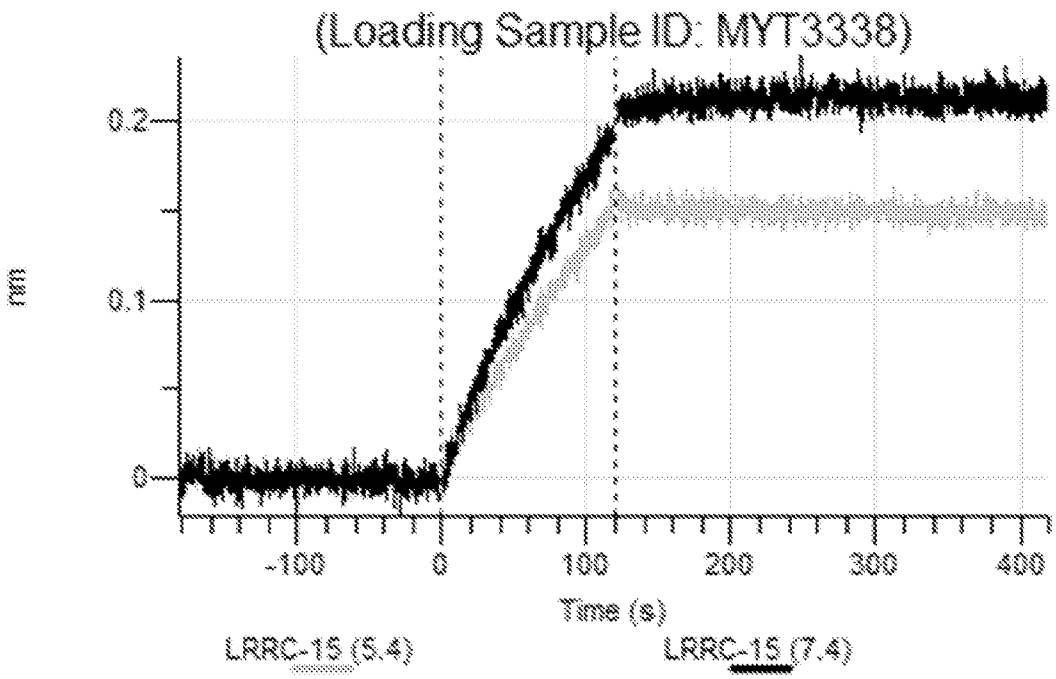

(Loading Sample ID: MYT3338)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23N

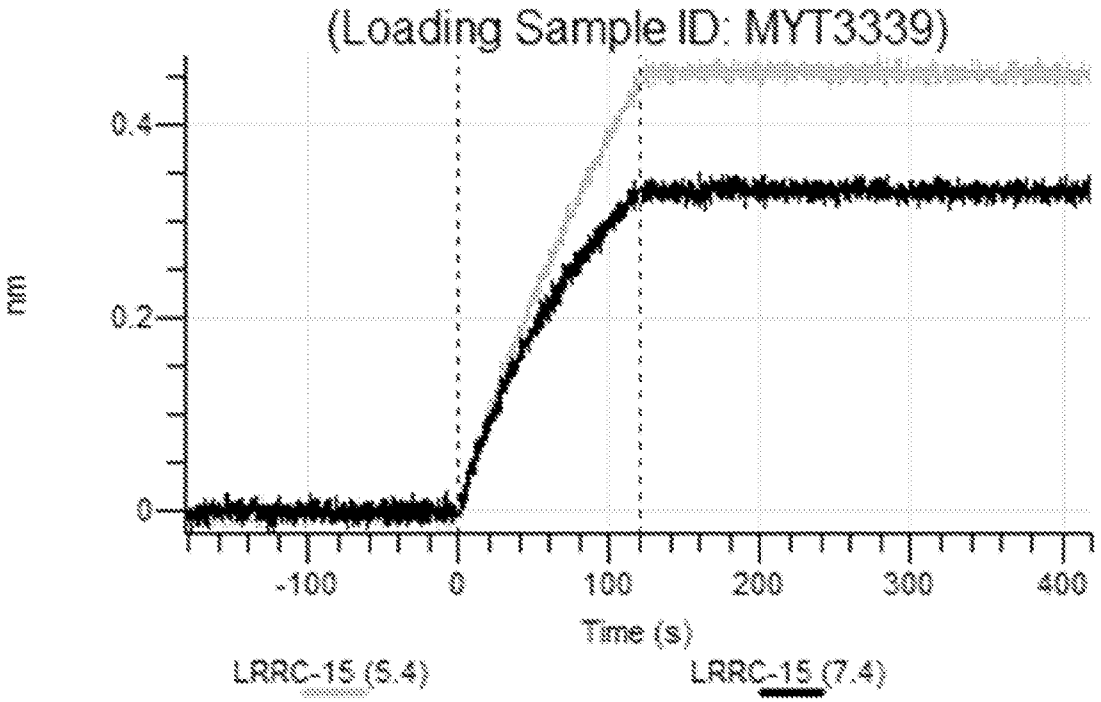

(Loading Sample ID: MYT3339)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23O

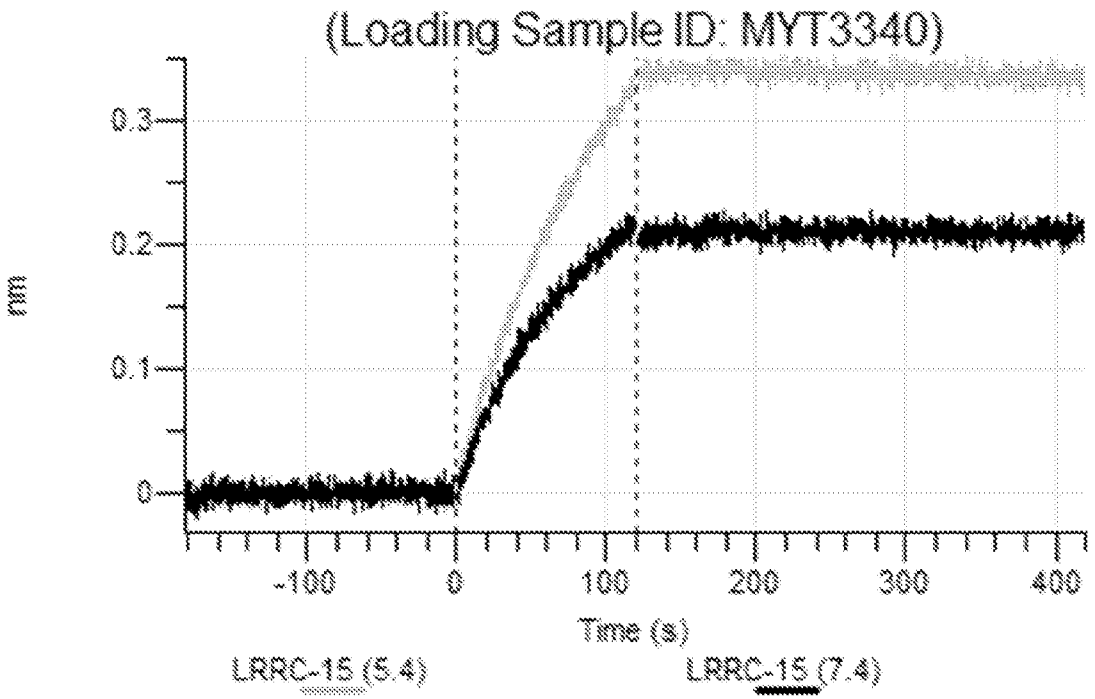

(Loading Sample ID: MYT3340)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23P

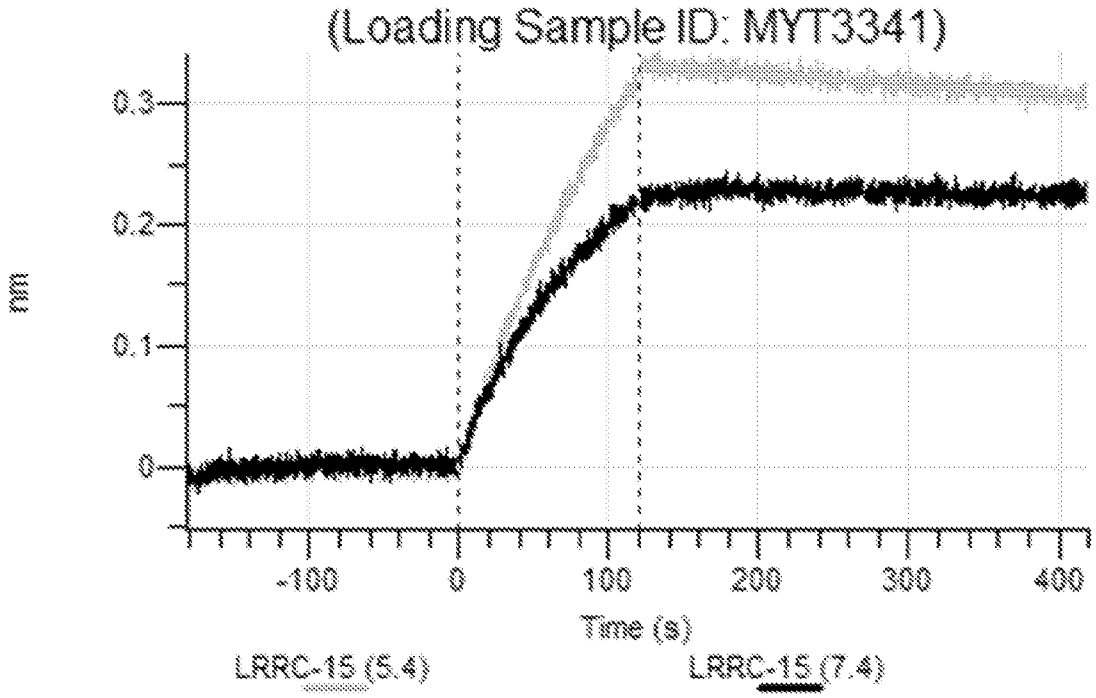

(Loading Sample ID: MYT3341)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23Q

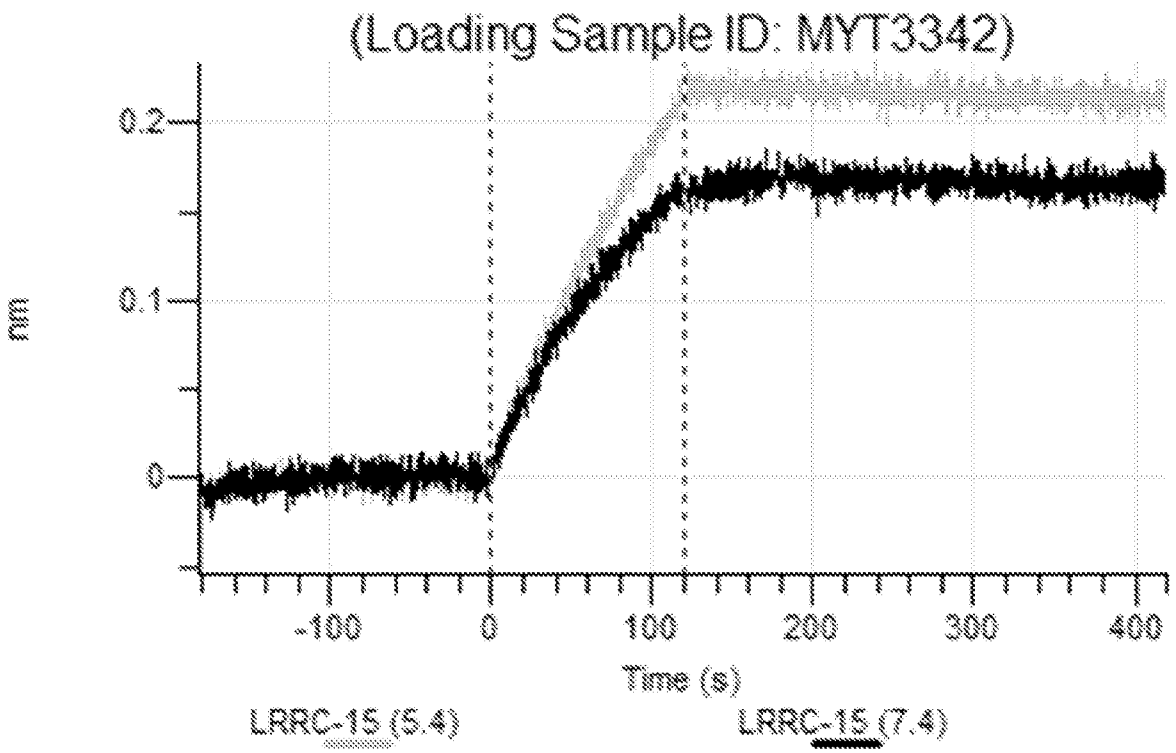

(Loading Sample ID: MYT3342)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23R

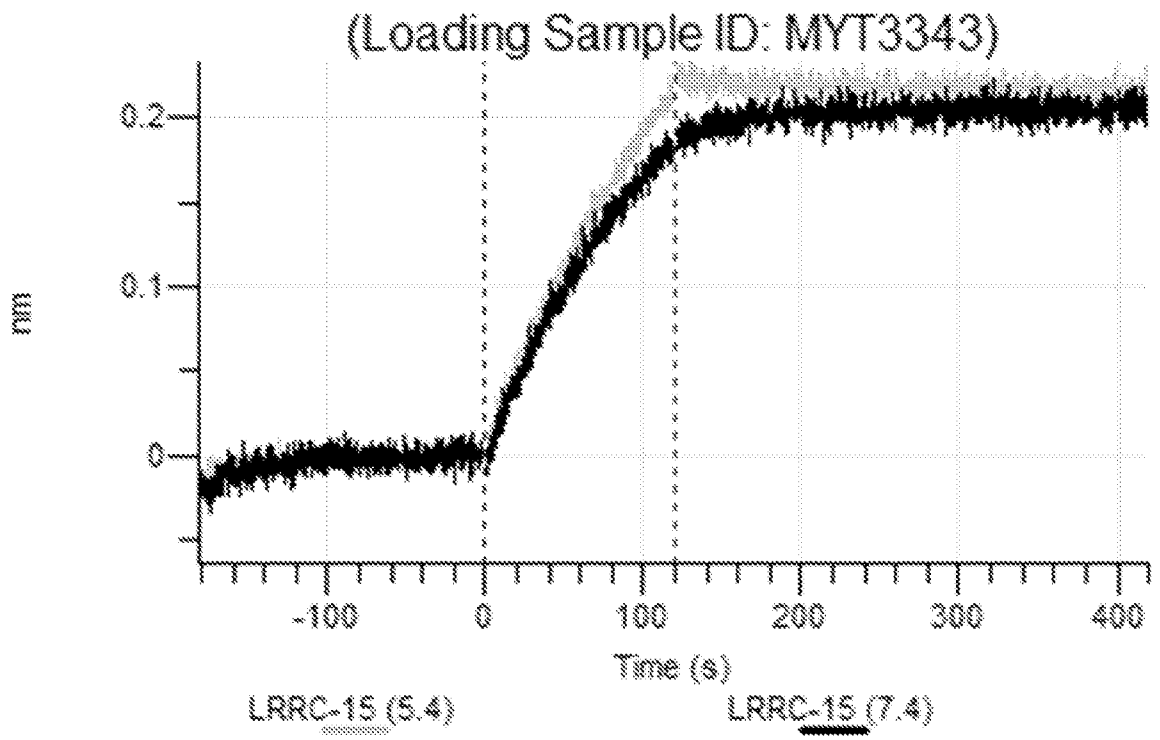

(Loading Sample ID: MYT3343)
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23S

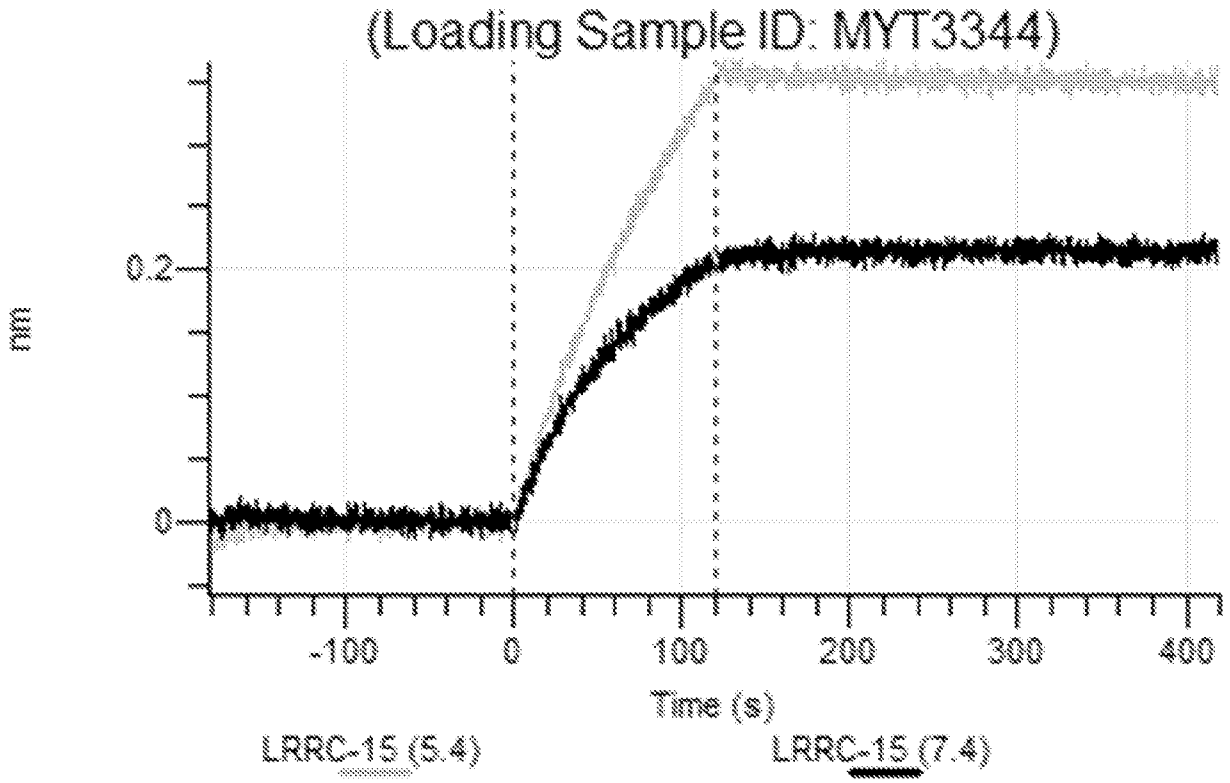

(Loading Sample ID: MYT3344)
nm
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23T

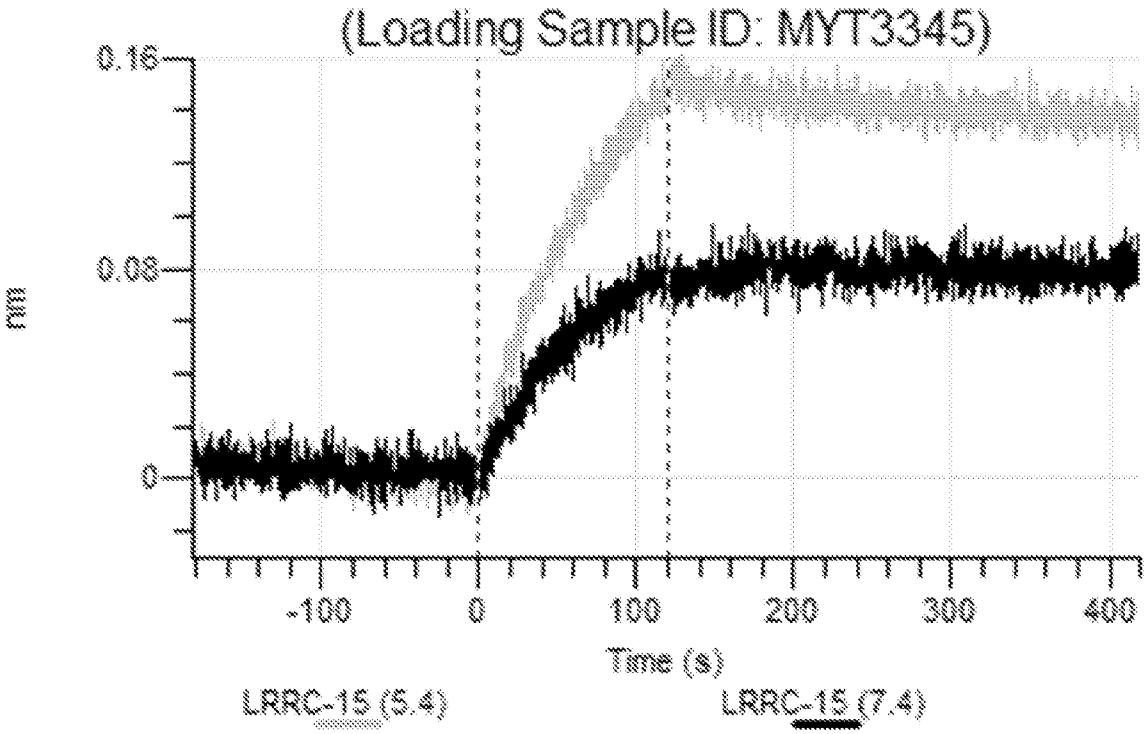

(Loading Sample ID: MYT3345)
0.16
0.08
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23U

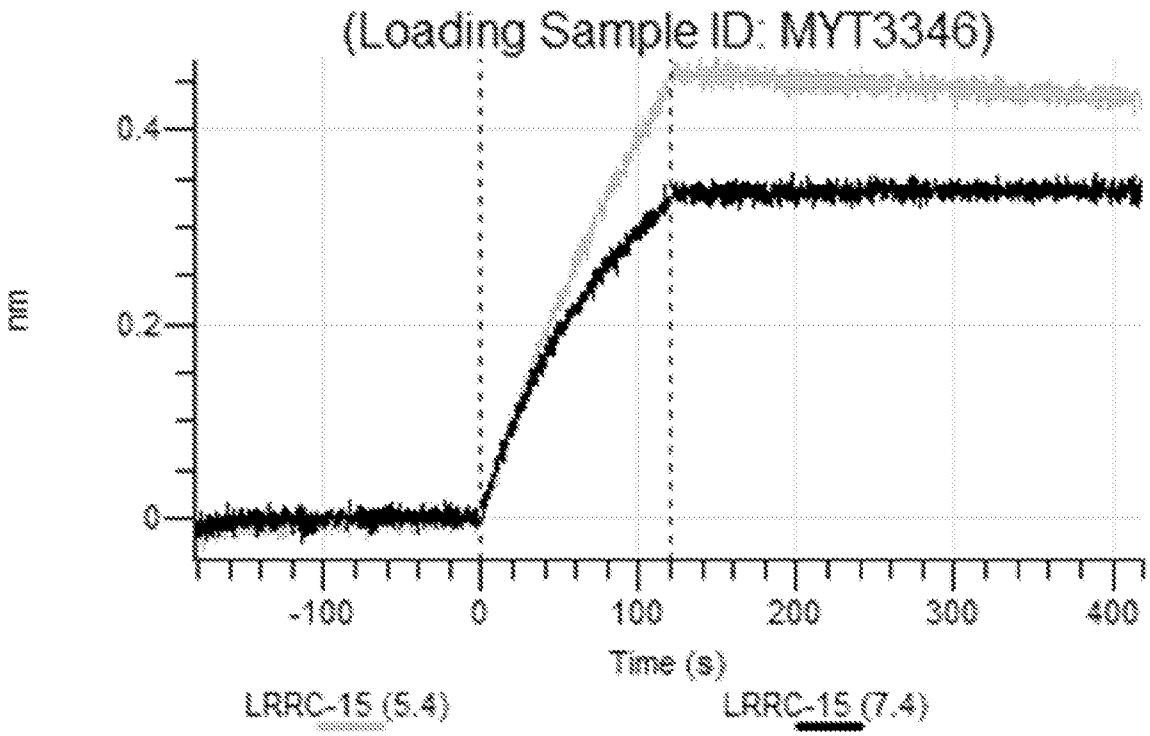

(Loading Sample ID: MYT3346)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23V

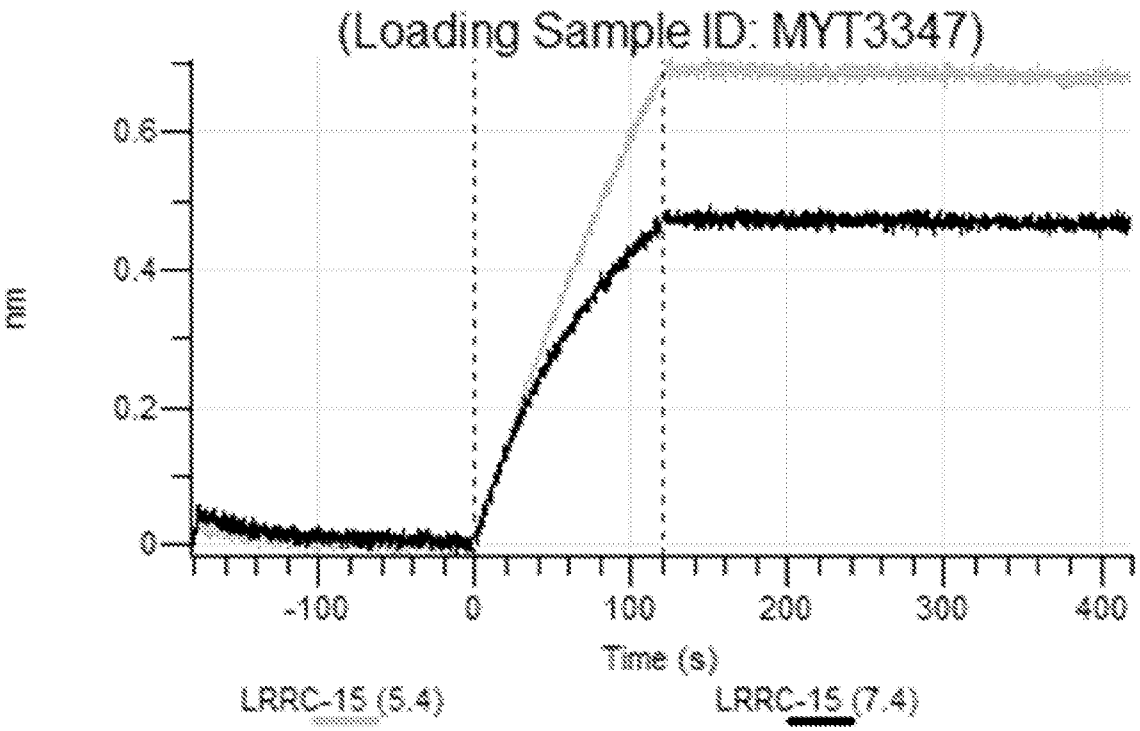

(Loading Sample ID: MYT3347)
nm
0.6
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23W

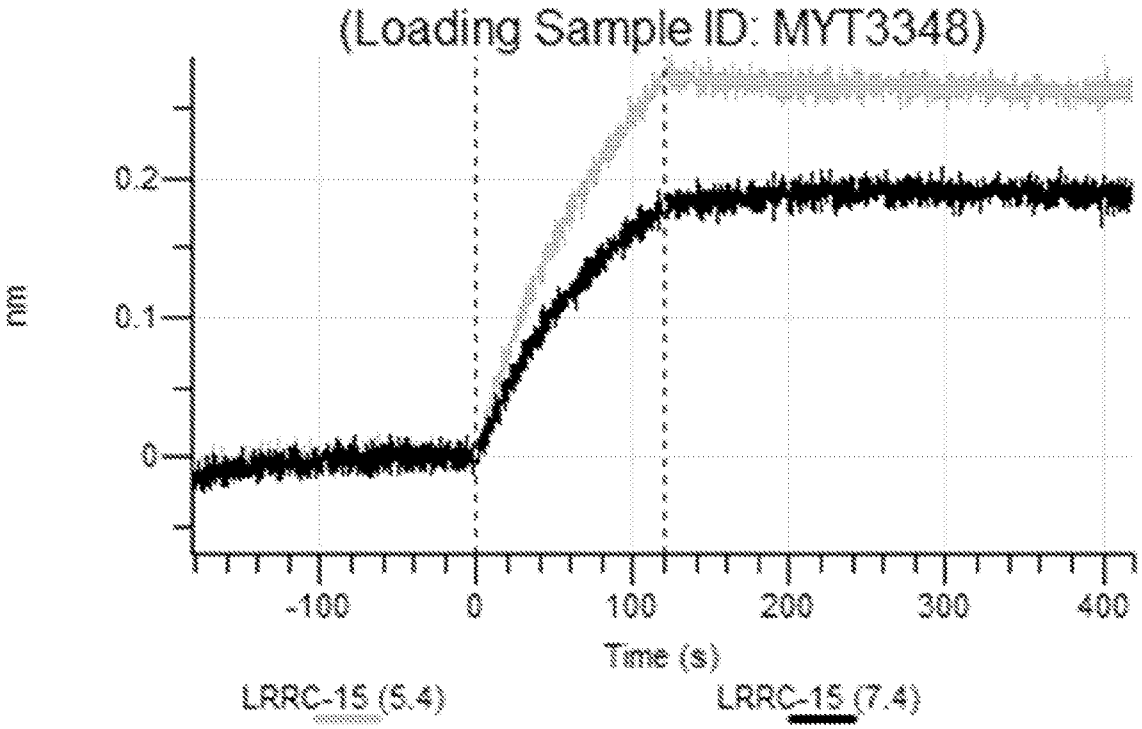

(Loading Sample ID: MYT3348)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23X

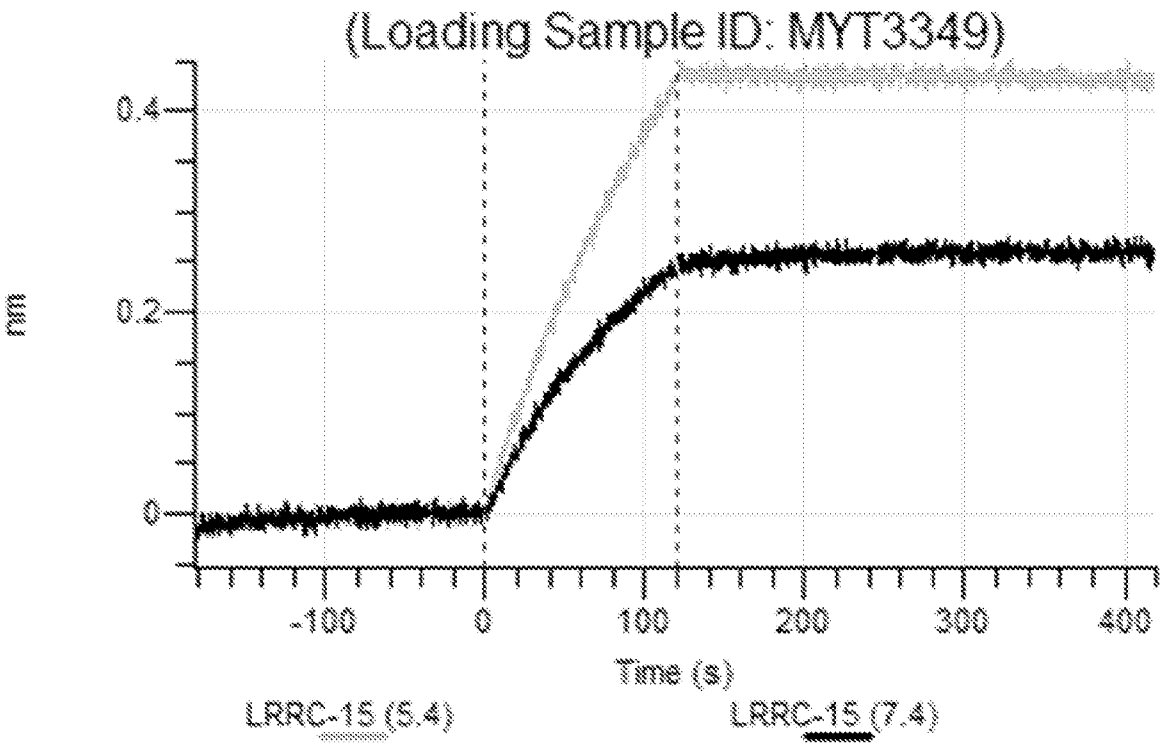

(Loading Sample ID: MYT3349)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23Y

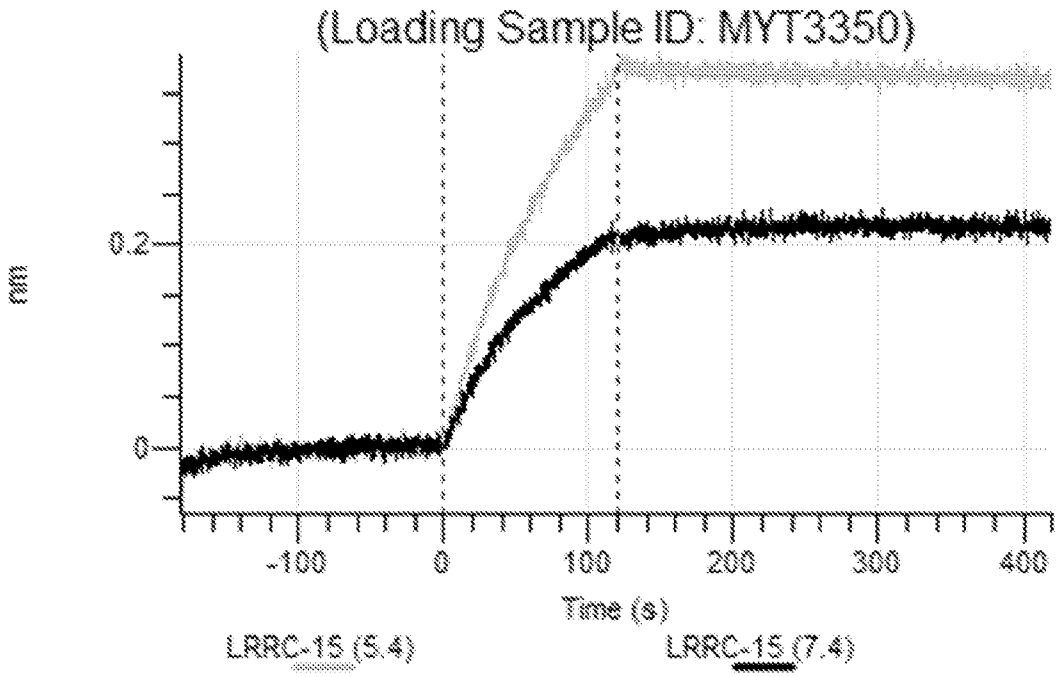

(Loading Sample ID: MYT3350)
nm
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23Z

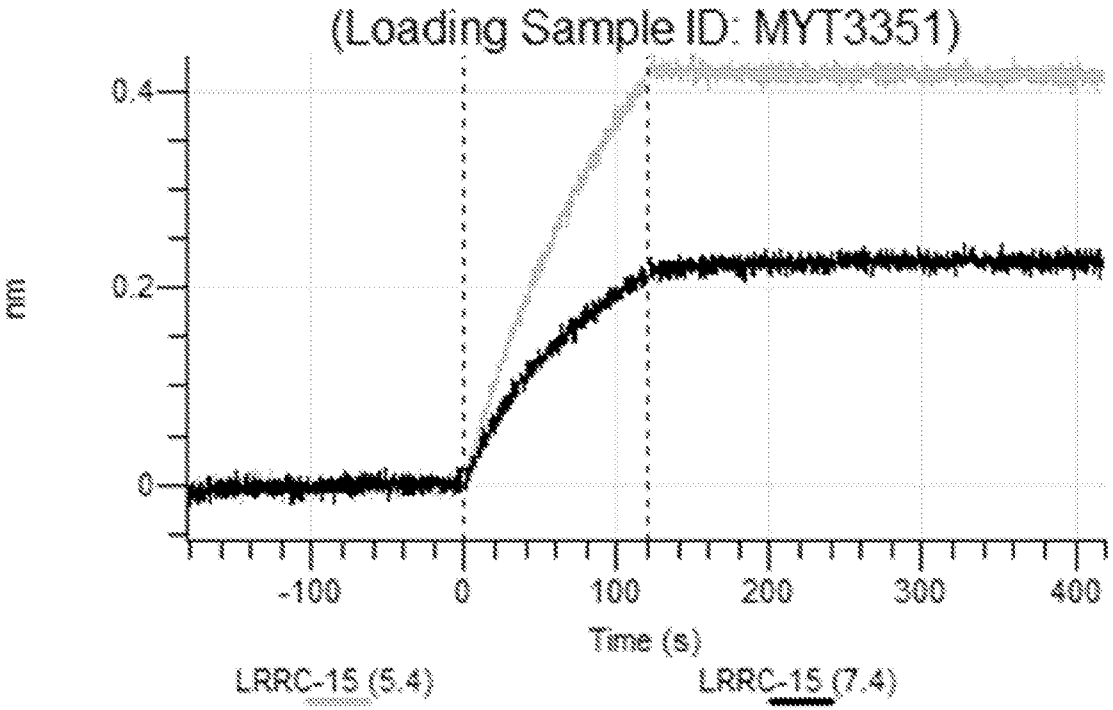

(Loading Sample ID: MYT3351)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AA

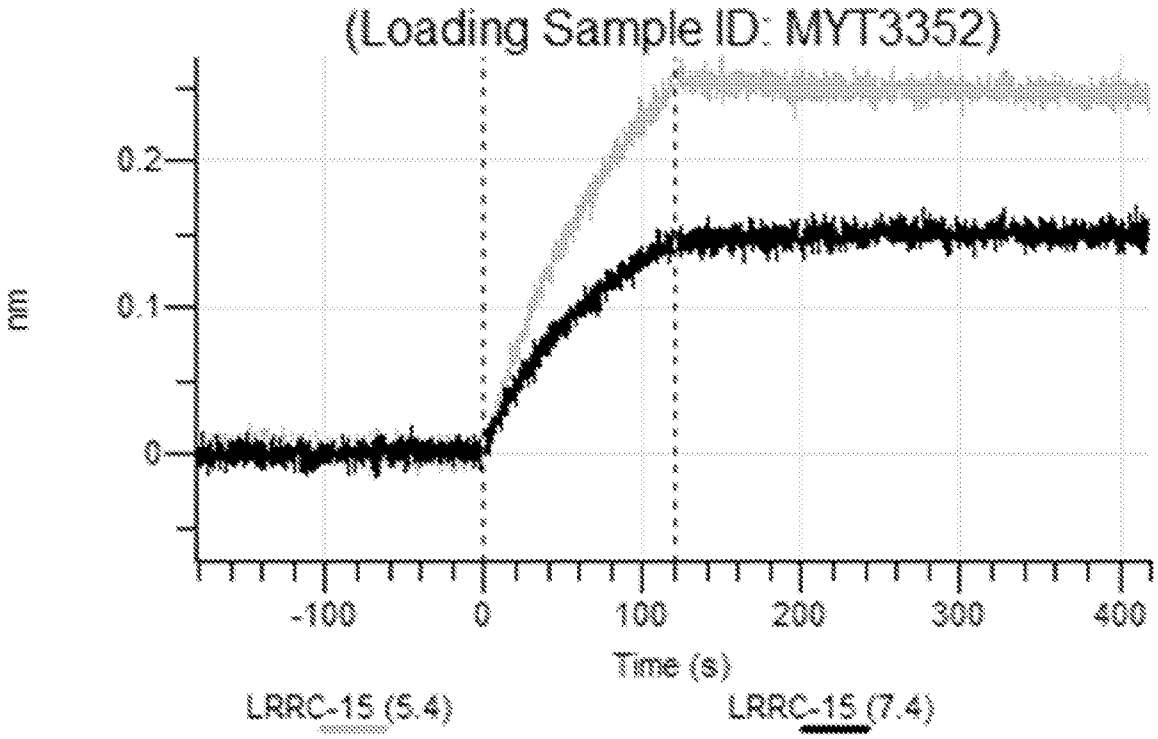

(Loading Sample ID: MYT3352)
0.2
0.1
0
(nm)
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AB

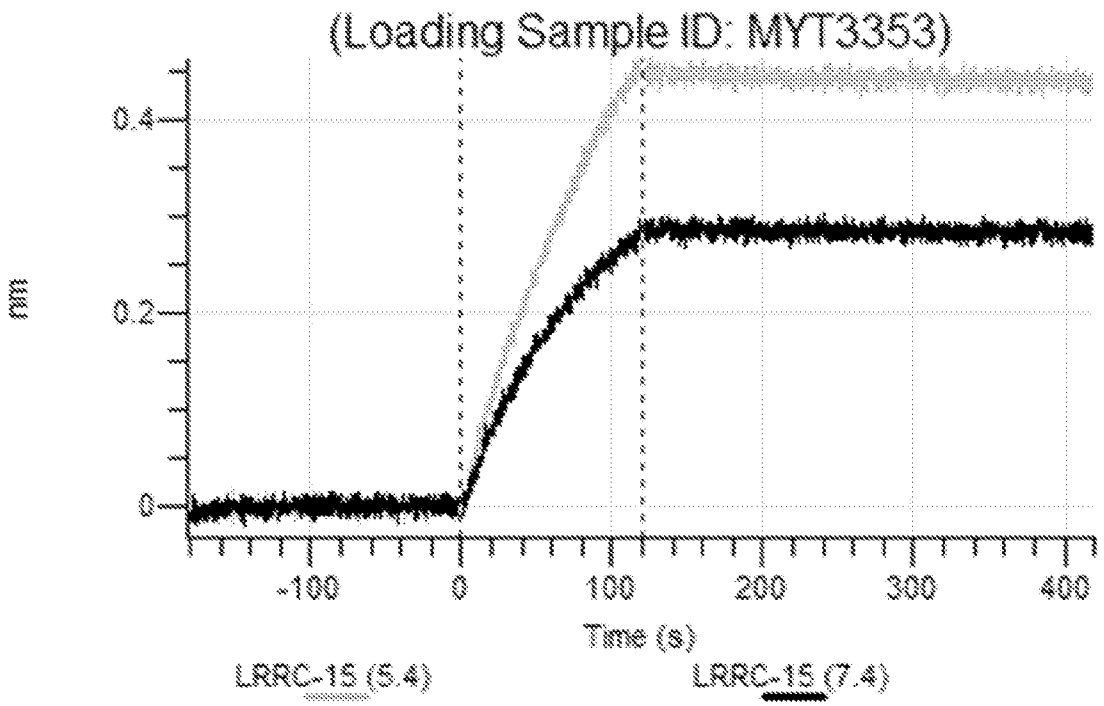

(Loading Sample ID: MYT3353)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AC

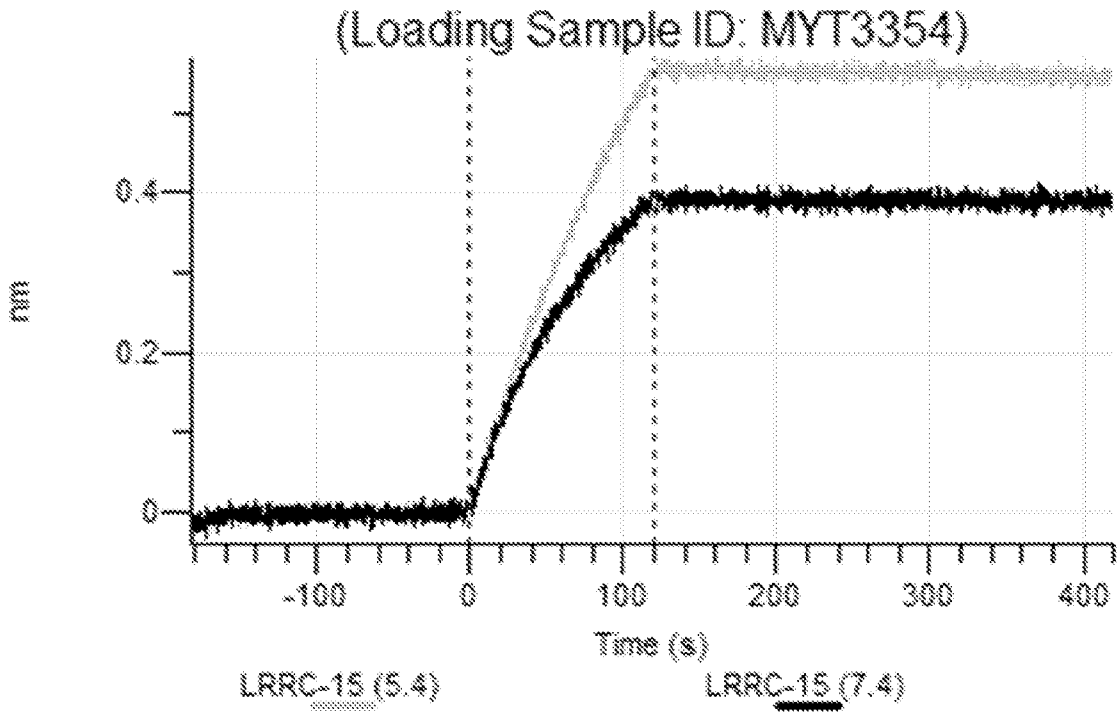

(Loading Sample ID: MYT3354)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AD

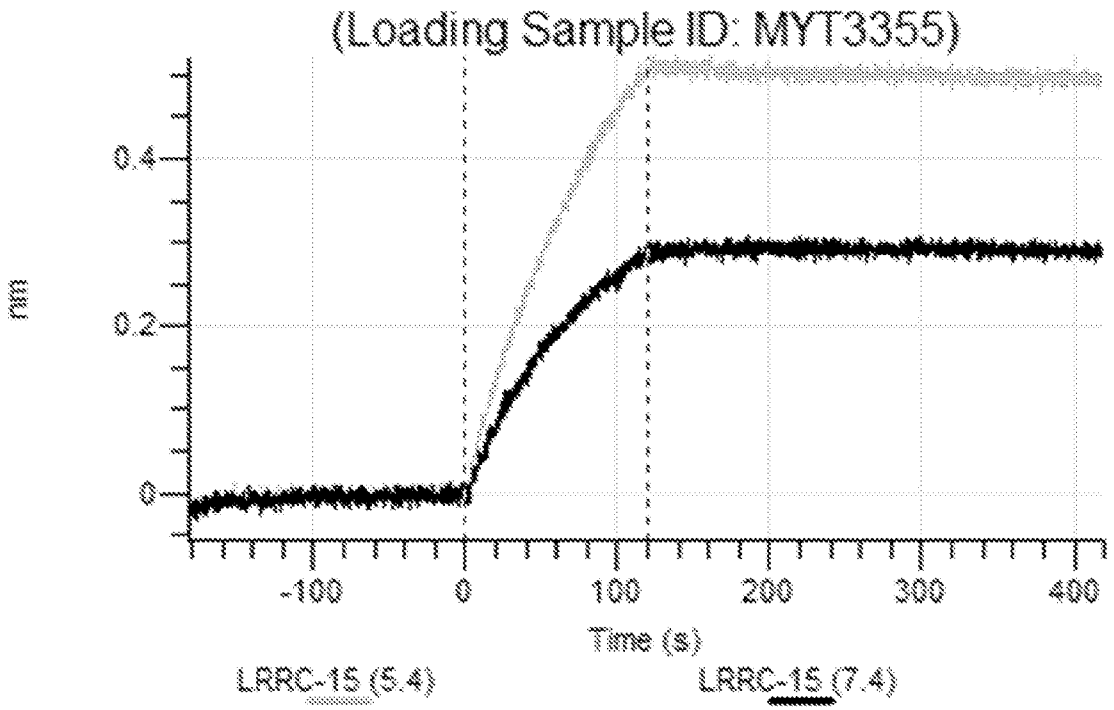

(Loading Sample ID: MYT3355)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AE

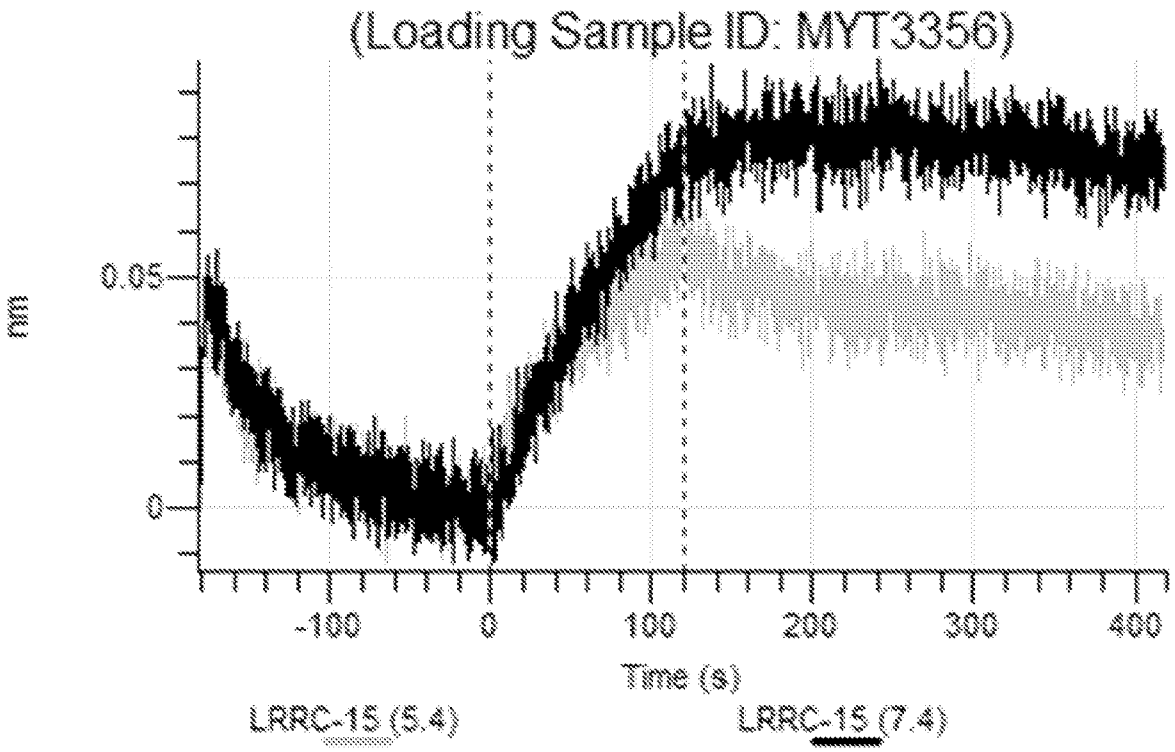

(Loading Sample ID: MYT3356)
nm
0.05
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AF

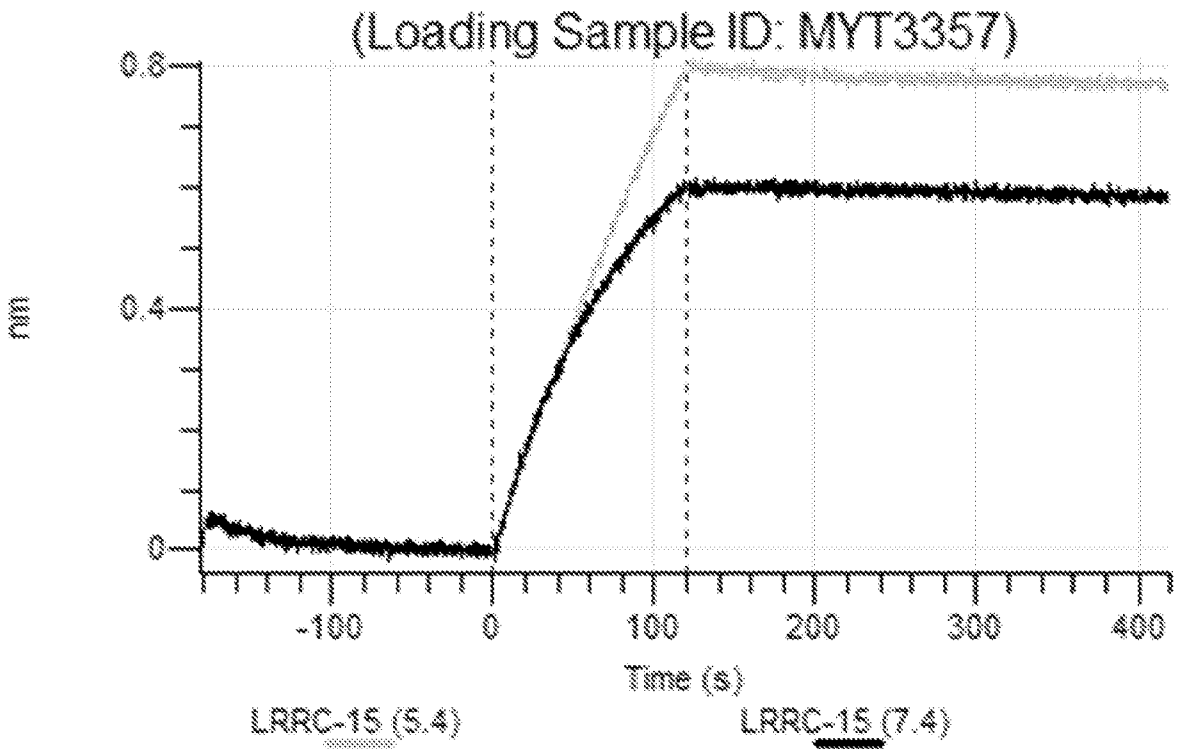

(Loading Sample ID: MYT3357)
0.8
0.4
0
(nm)
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AG

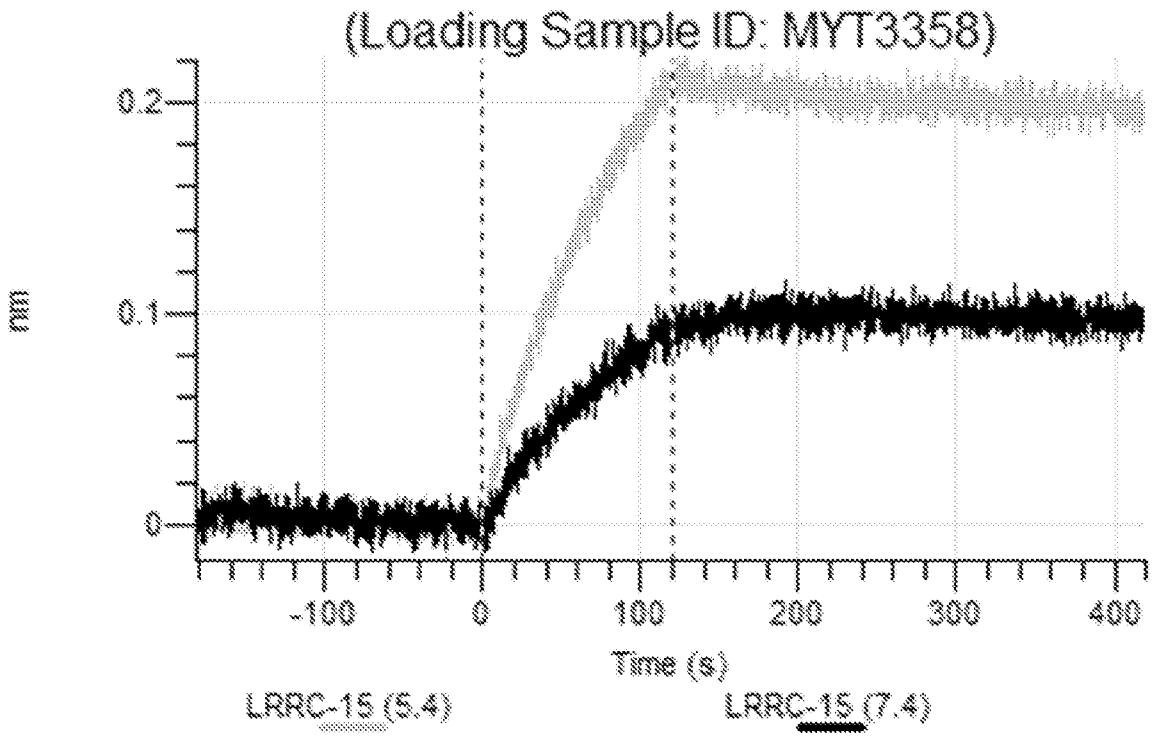

(Loading Sample ID: MYT3358)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AH

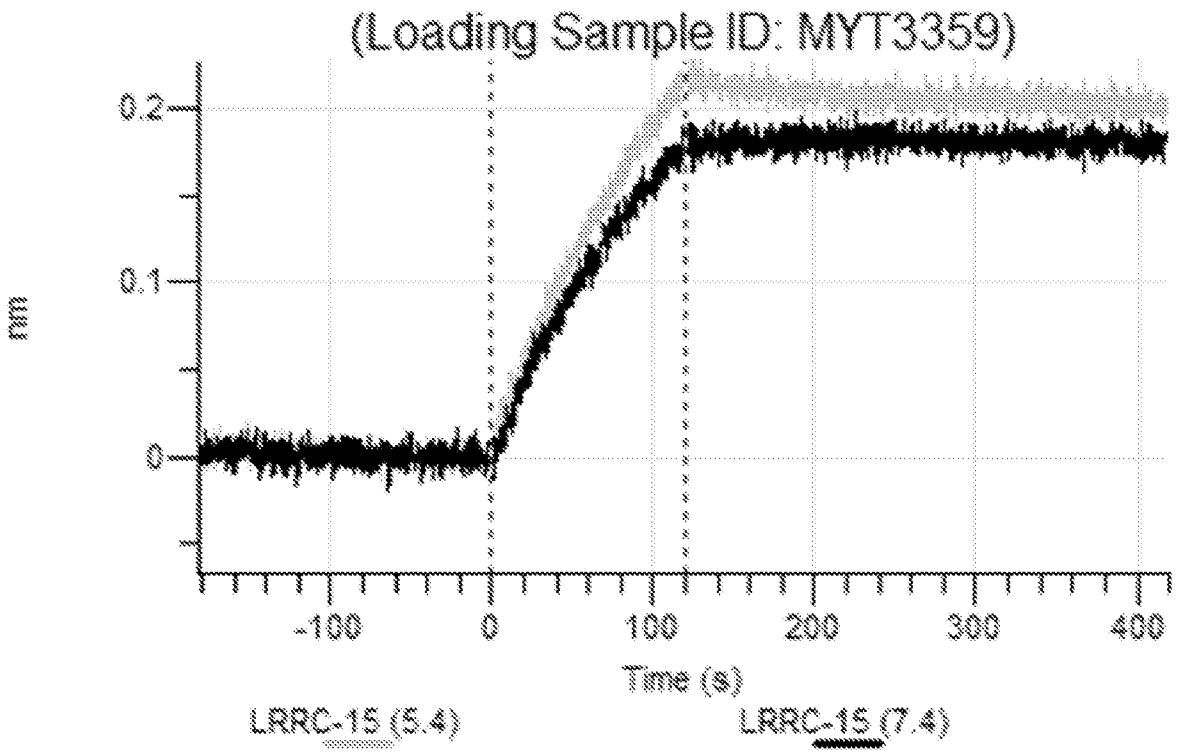

(Loading Sample ID: MYT3359)
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AI

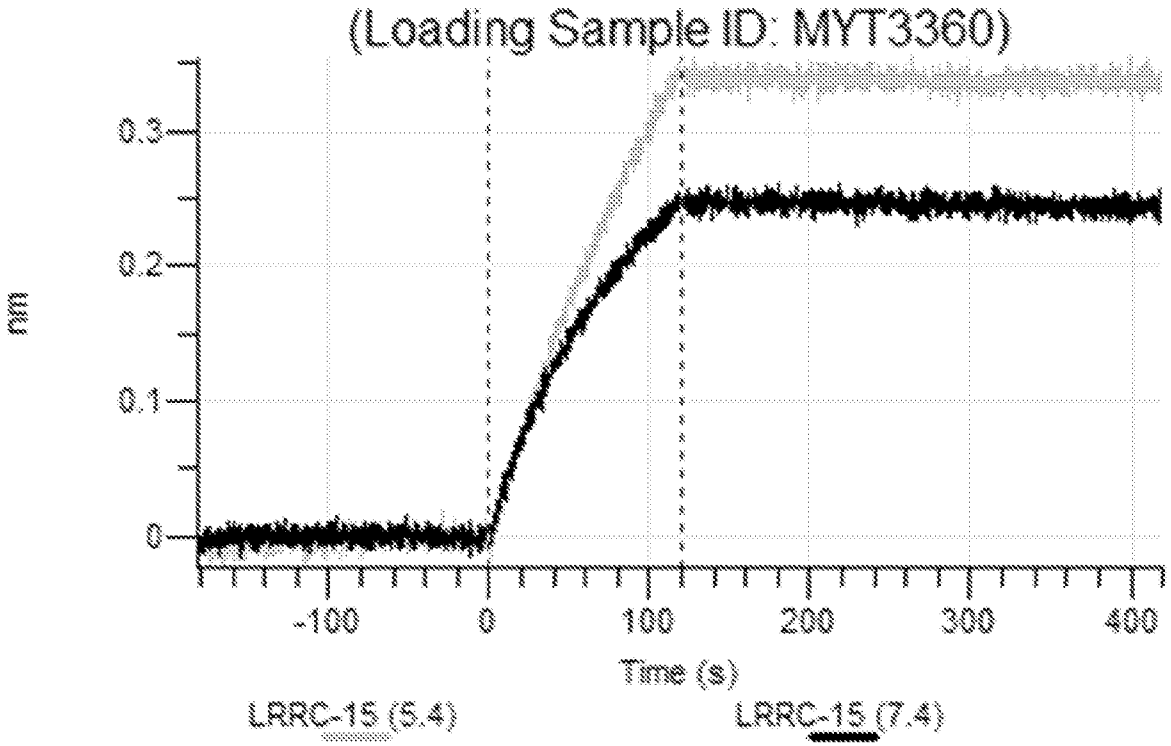

(Loading Sample ID: MYT3360)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AJ

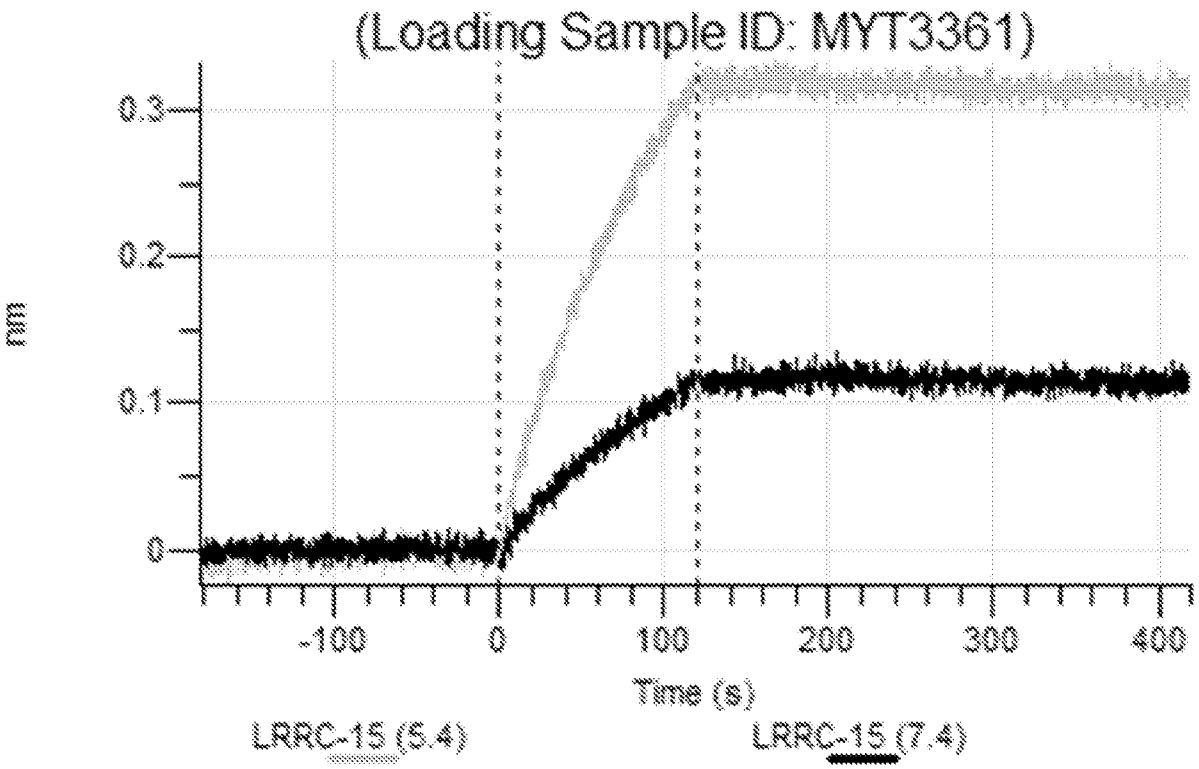

(Loading Sample ID: MYT3361)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AK

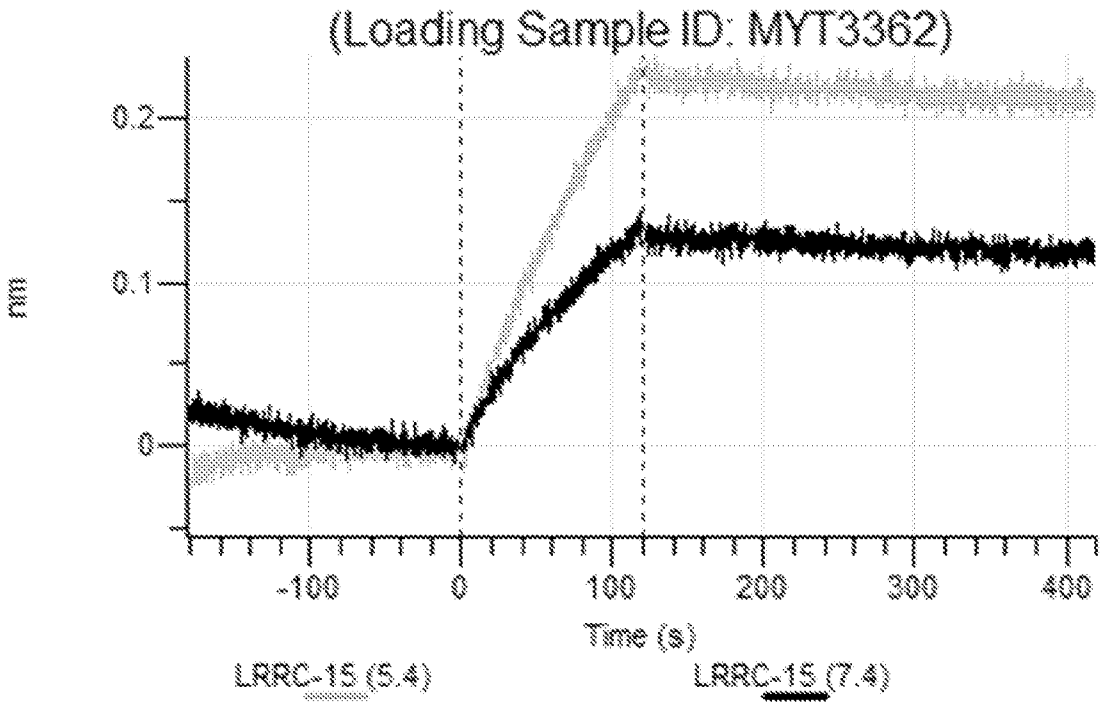

(Loading Sample ID: MYT3362)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AL

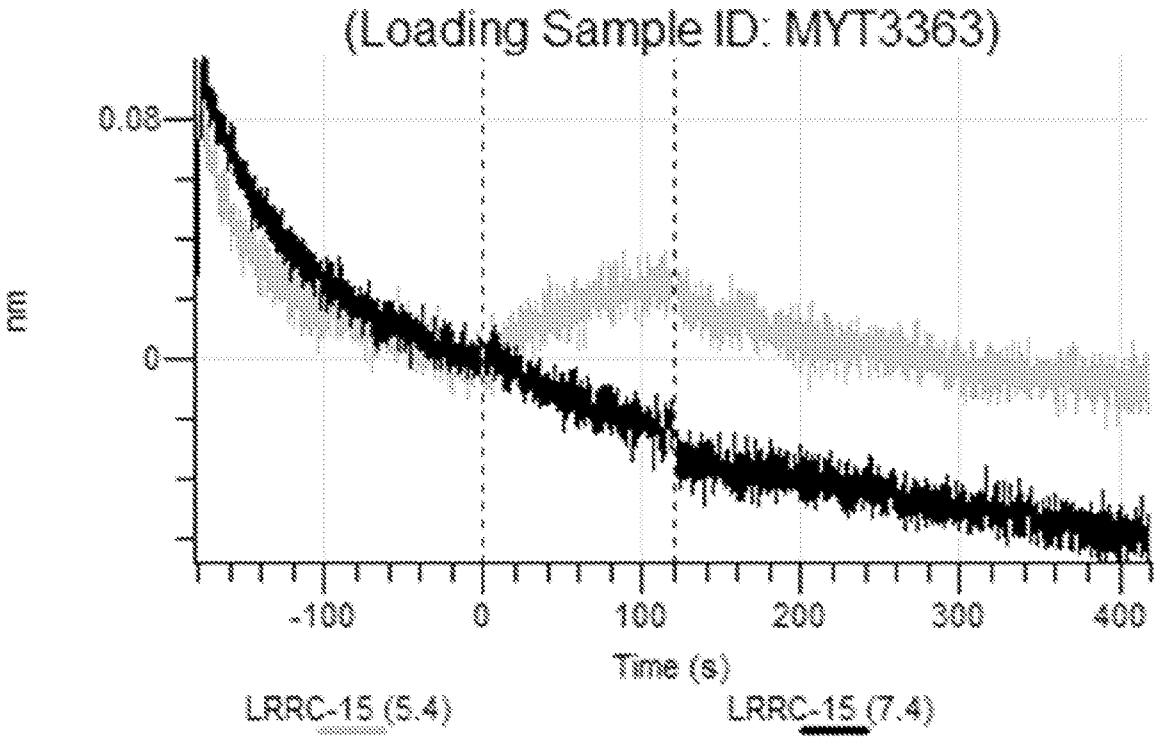

(Loading Sample ID: MYT3363)
0.08
0
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AM

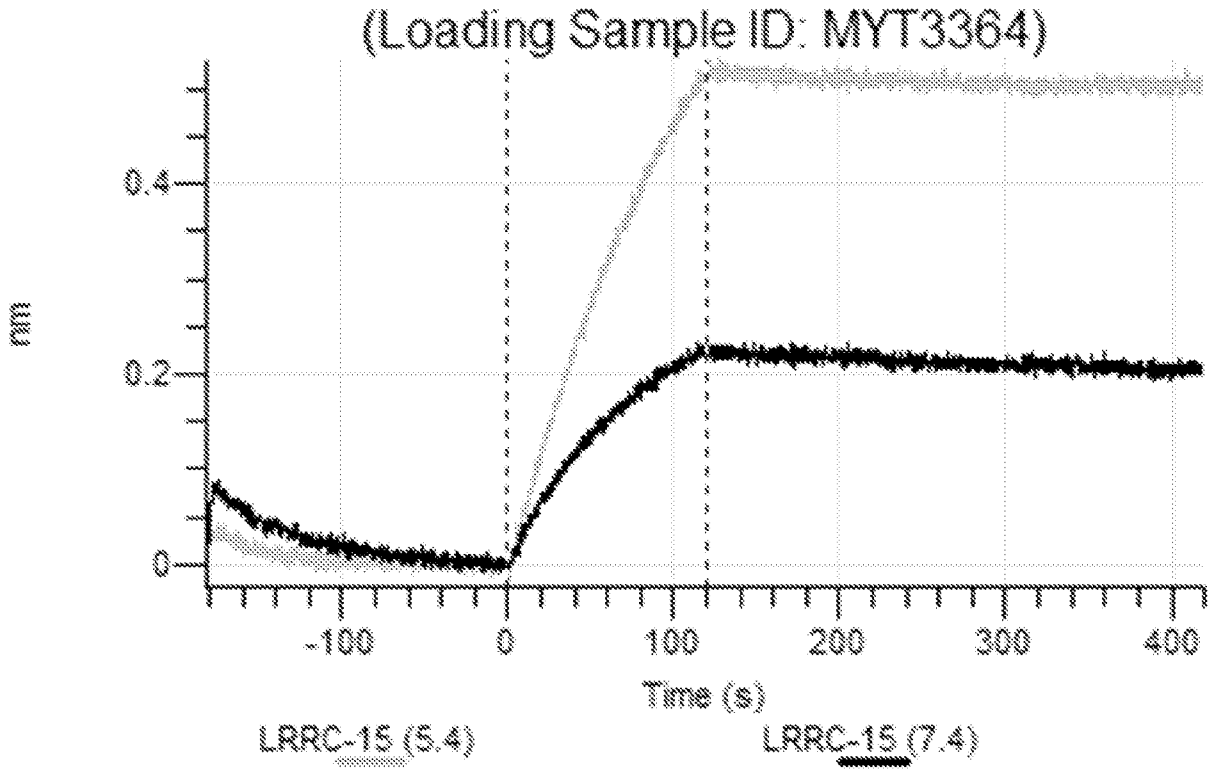

(Loading Sample ID: MYT3364)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AN

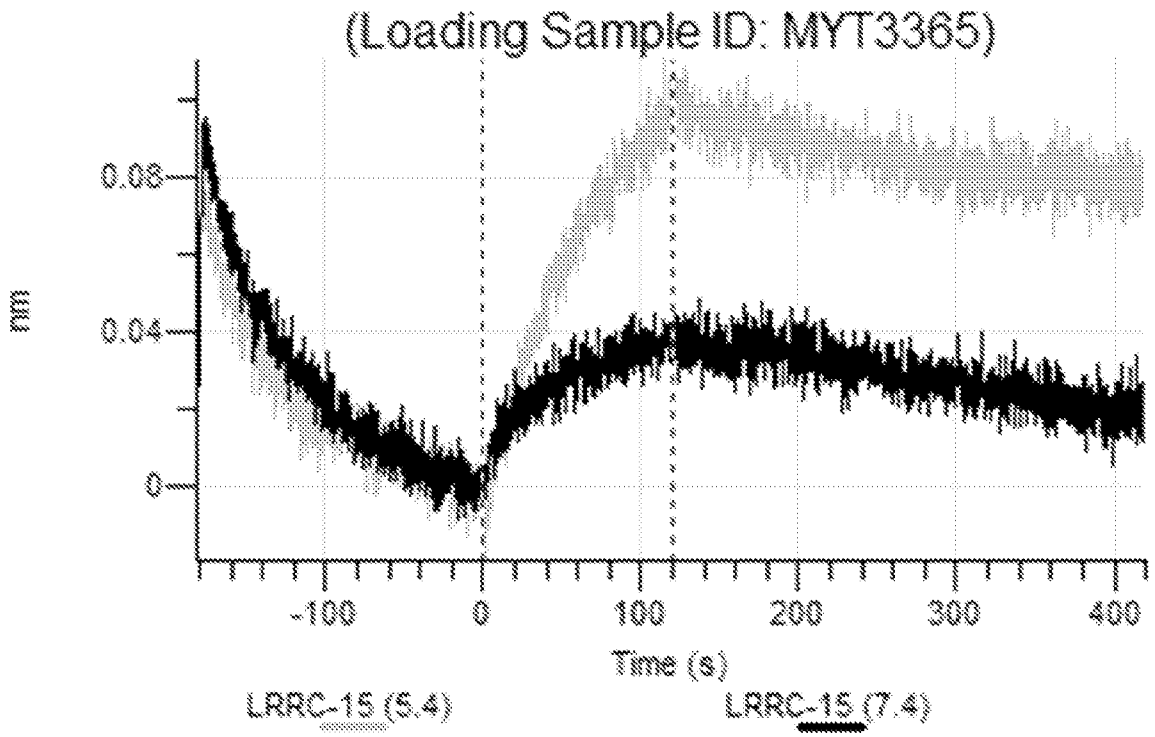

(Loading Sample ID: MYT3365)
nm
0.08
0.04
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AO

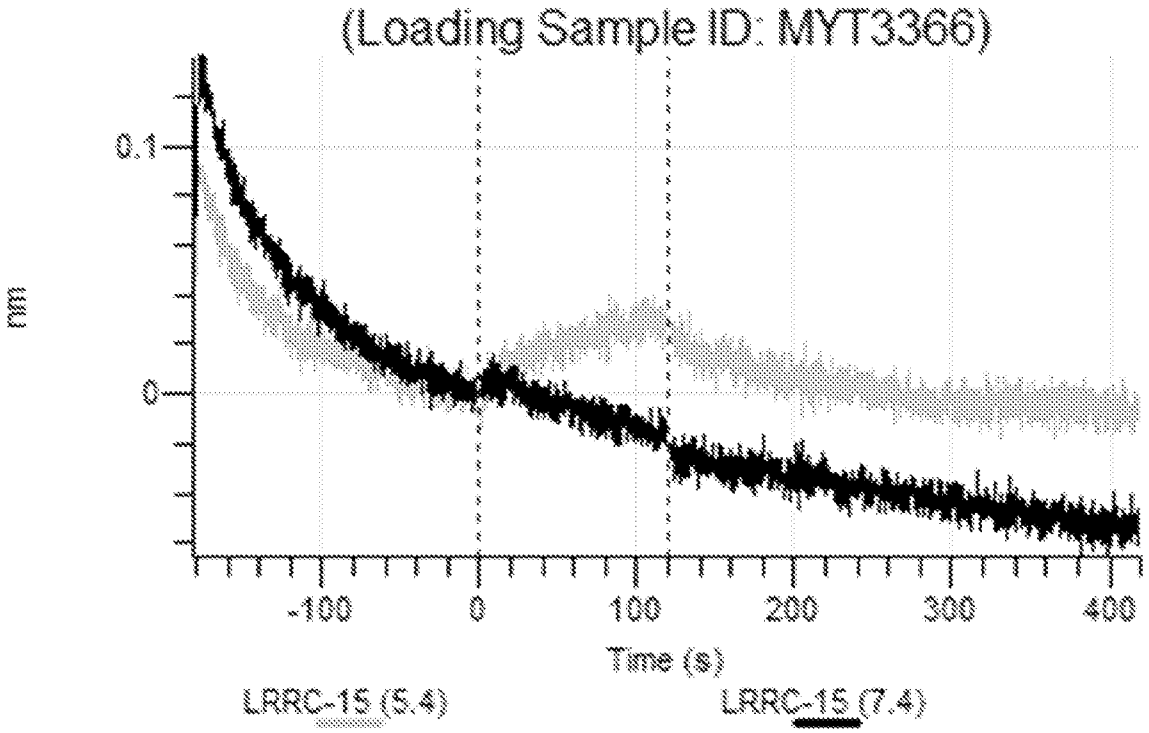

(Loading Sample ID: MYT3366)
nm
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AP

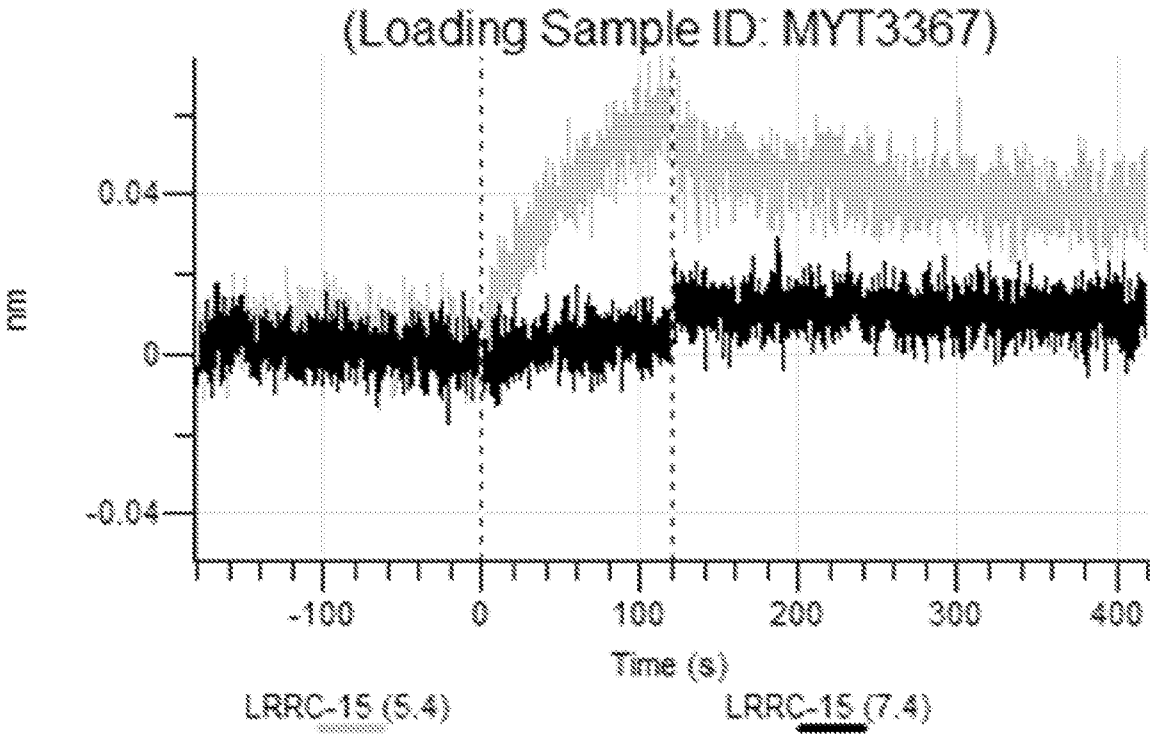

(Loading Sample ID: MYT3367)
0.04
0
-0.04
nm
-100
0
100
200
300
400
Time (s)
LRRC-15 (5.4)
LRRC-15 (7.4)

FIG. 23AQ

	Heavy	Light	CDRH1	CDRH2	CDRH3	CDRL1	CDRL2	CDRL3
MYT3325 (huAD208.4.1)	178	179	180	181	182	183	184	185
MYT3326	186	179						
MYT3327	187	179						
MYT3328	188	179						
MYT3329	189	179						
MYT3330	190	179						
MYT3331	191	179						
MYT3332	192	179						
MYT3333	193	179						
MYT3334	194	179						
MYT3335	195	179						
MYT3336	196	179						
MYT3337	197	179						
MYT3338	198	179						
MYT3339	199	179						
MYT3340	200	179						
MYT3341	201	179						
MYT3342	202	179						
MYT3343	203	179						
MYT3344	204	179						
MYT3345	205	179						
MYT3346	206	179						
MYT3347	207	179						
MYT3348	208	179						
MYT3349	209	179						
MYT3350	210	179						
MYT3351	211	179						
MYT3352	212	179						
MYT3353	213	179						
MYT3354	214	179						
MYT3355	215	179						
MYT3356	216	179						
MYT3357	217	179						
MYT3358	218	179						
MYT3359	219	179						
MYT3360	220	179						
MYT3361	221	179						
MYT3362	222	179						
MYT3363	223	179						
MYT3364	224	179						
MYT3365	225	179						
MYT3366	226	179						
MYT3367	227	179						

FIG. 24

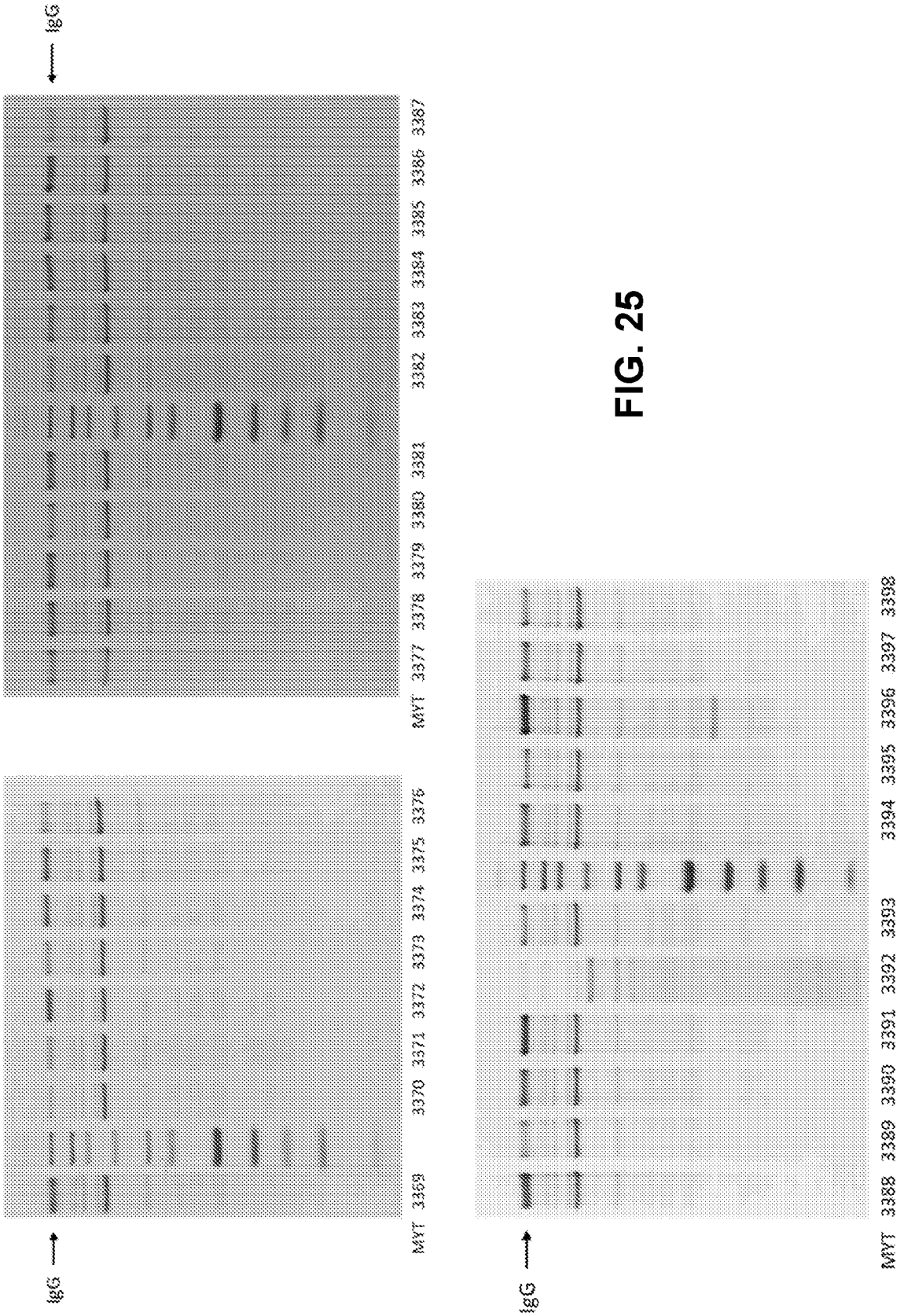

IgG
MYT 3369 3370 3371 3372 3373 3374 3375 3376
IgG
MYT 3377 3378 3379 3380 3381 3382 3383 3384 3385 3386 3387
IgG
MYT 3388 3389 3390 3391 3392 3393 3394 3395 3396 3397 3398

FIG. 25

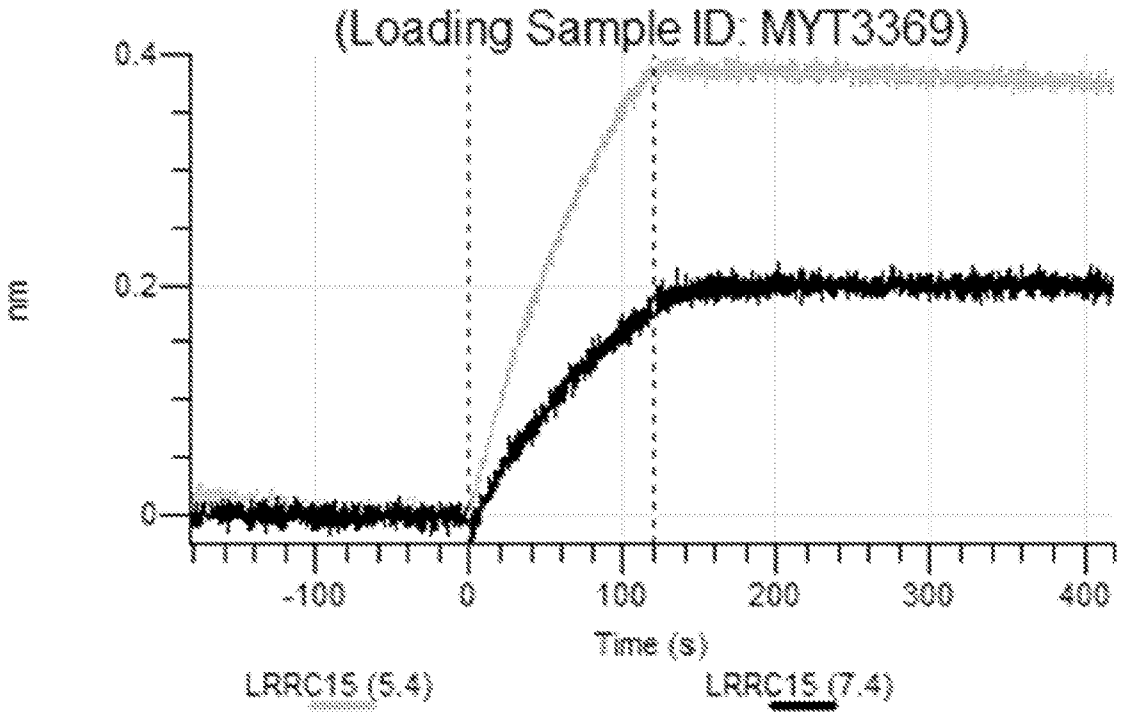

(Loading Sample ID: MYT3369)
0.4
0.2
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26A

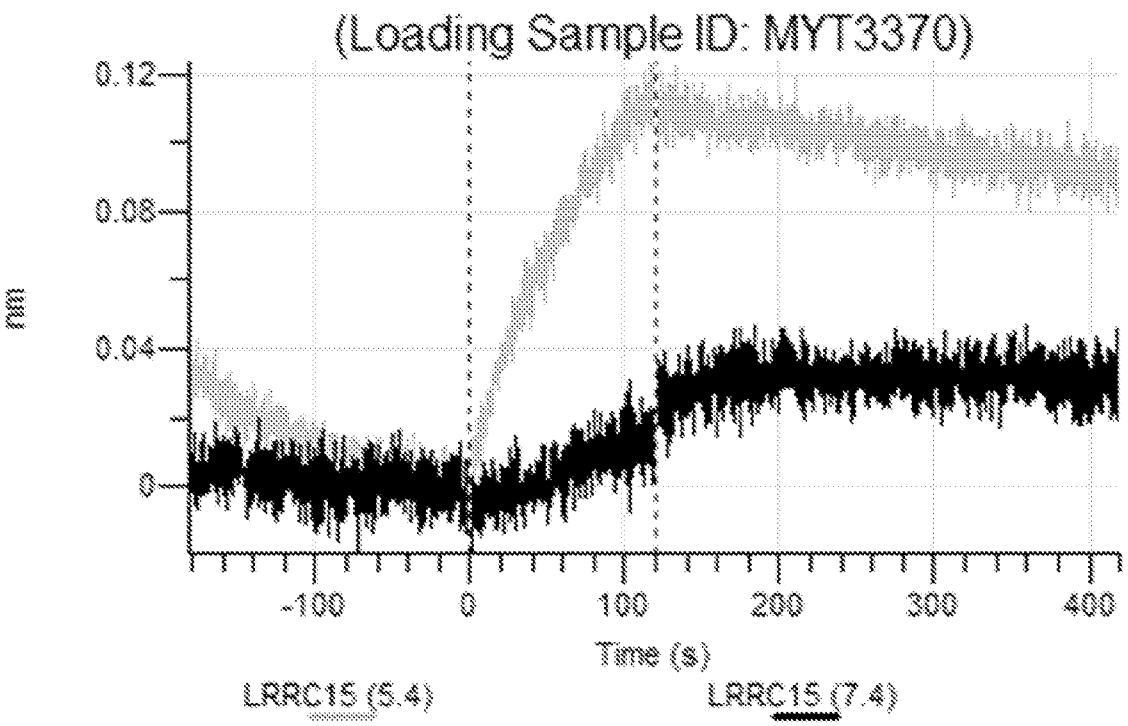

(Loading Sample ID: MYT3370)
0.12
0.08
0.04
0
(nm)
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26B

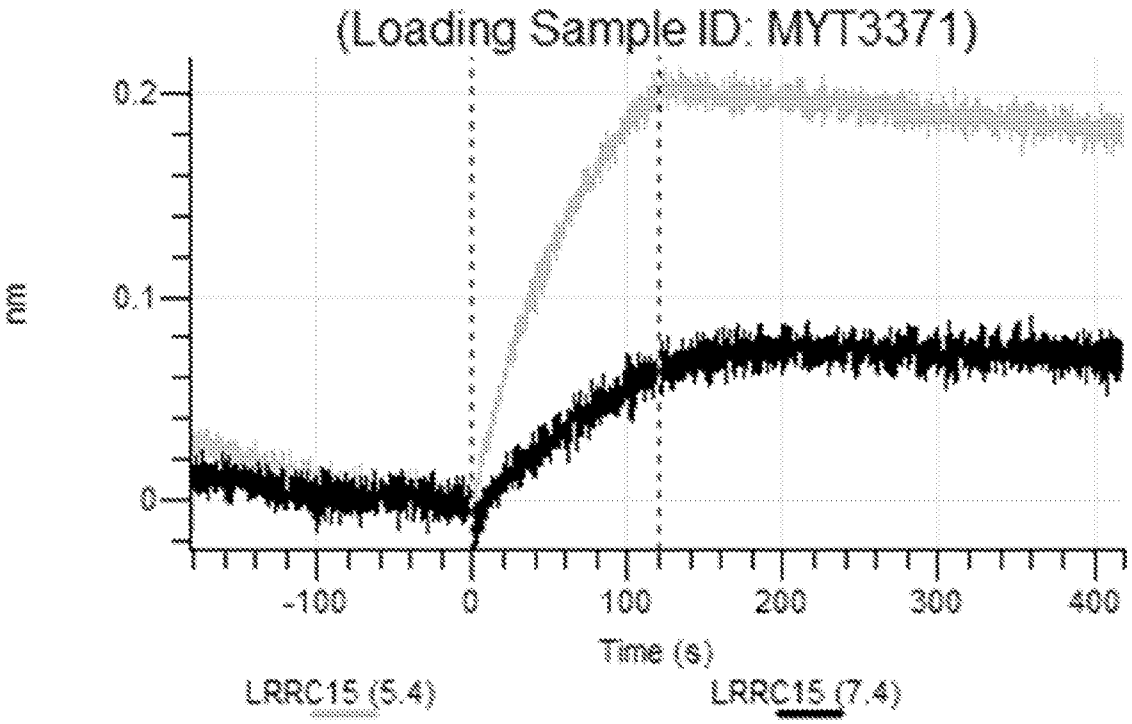

(Loading Sample ID: MYT3371)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26C

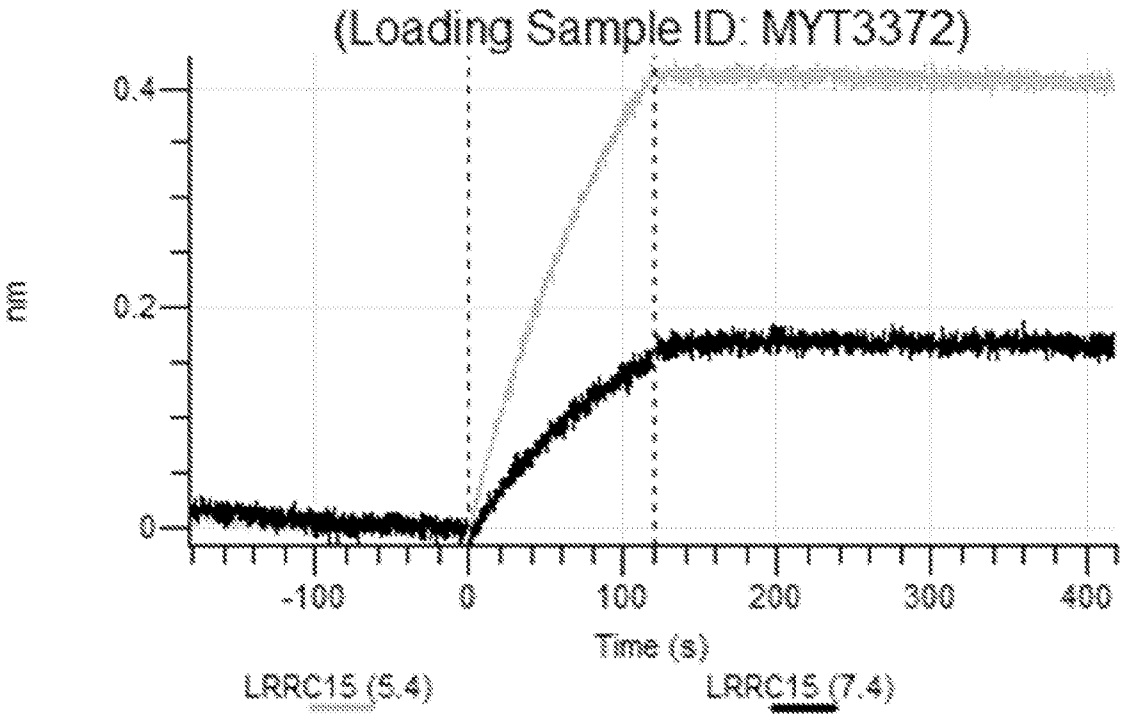

(Loading Sample ID: MYT3372)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26D

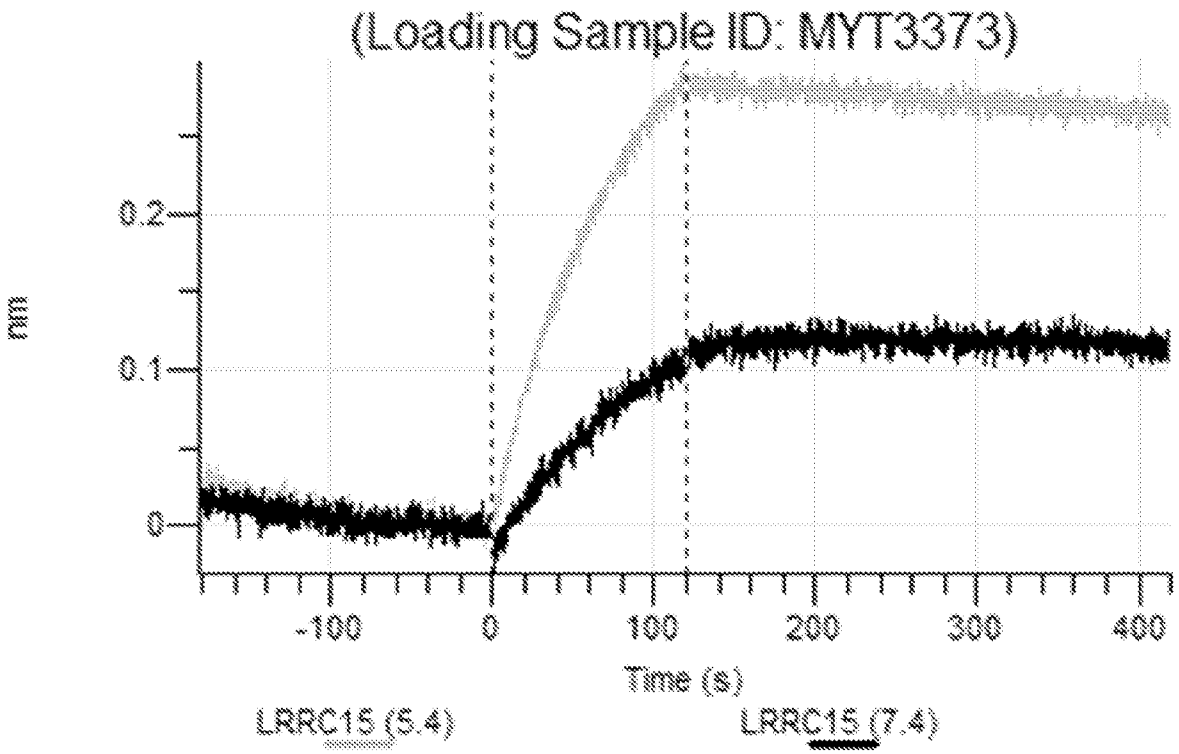

(Loading Sample ID: MYT3373)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26E

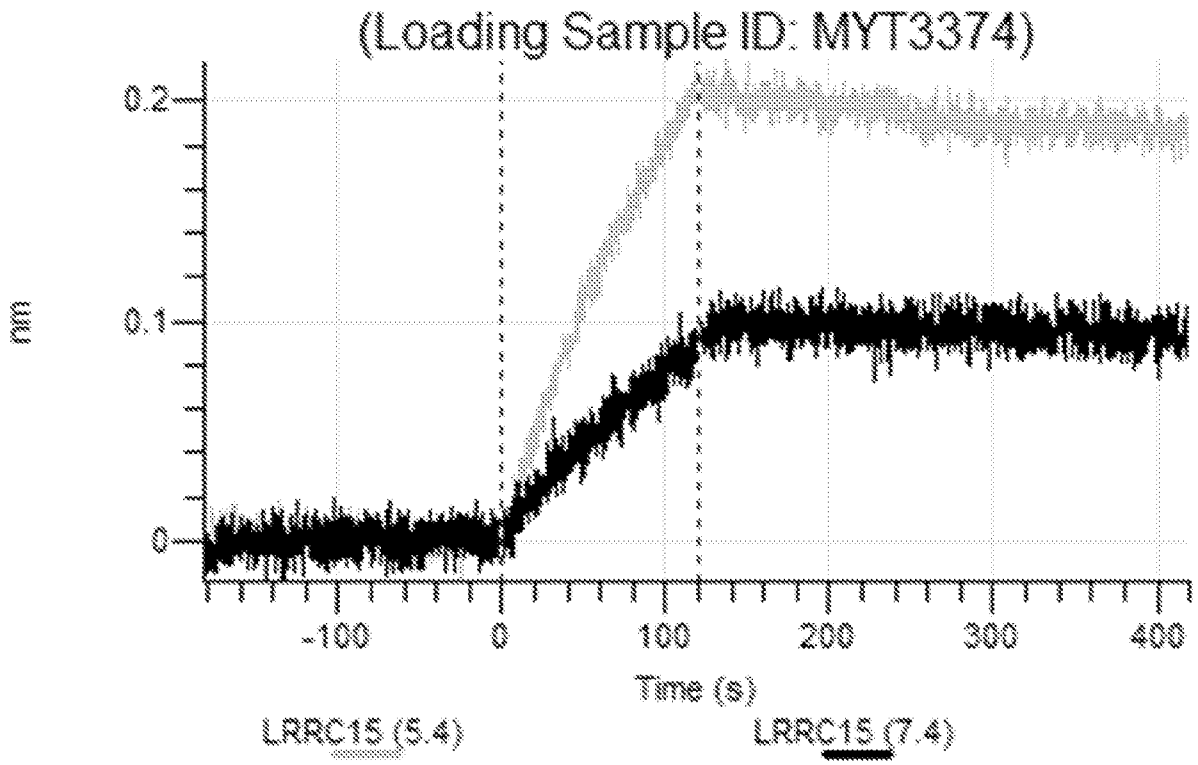

(Loading Sample ID: MYT3374)
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26F

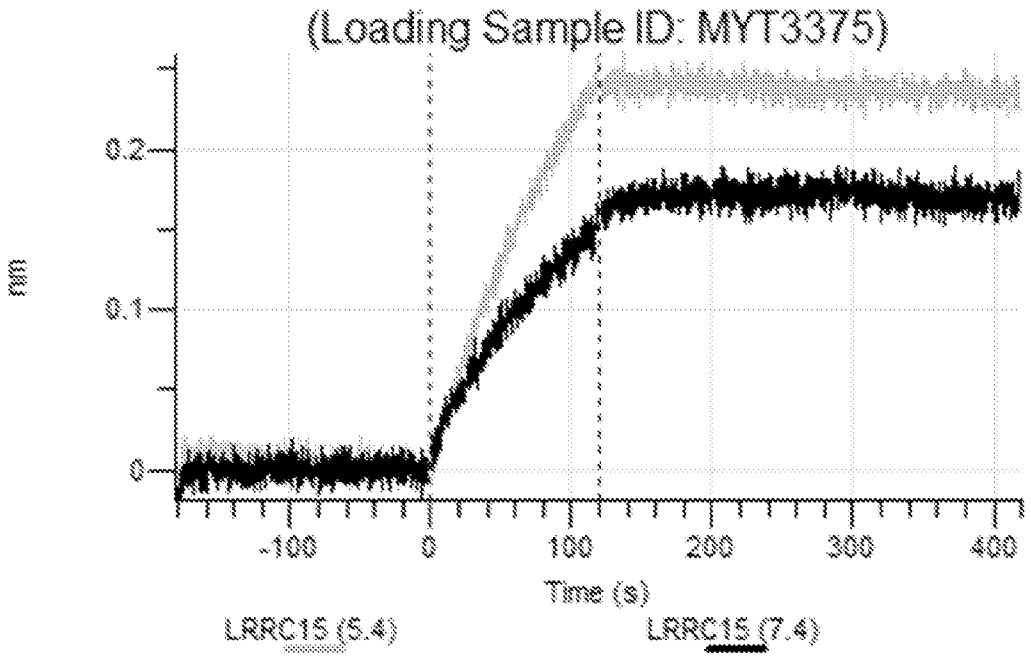

(Loading Sample ID: MYT3375)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26G

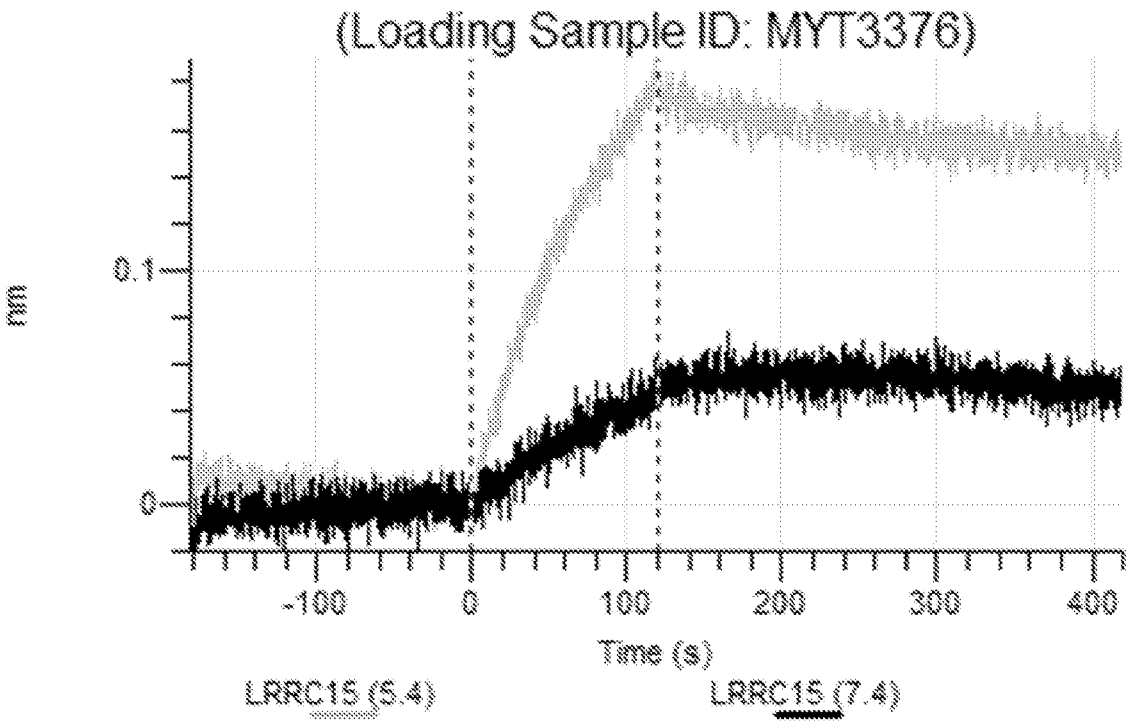

(Loading Sample ID: MYT3376)
nm
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26H

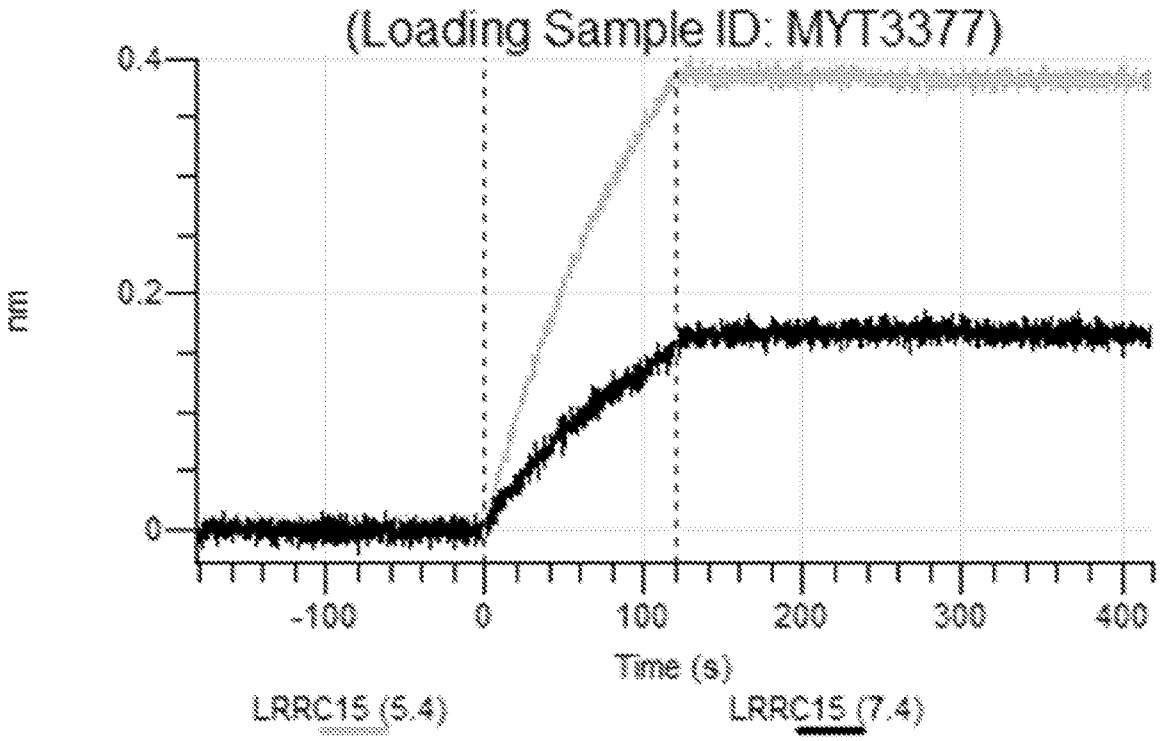

(Loading Sample ID: MYT3377)
0.4
0.2
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26I

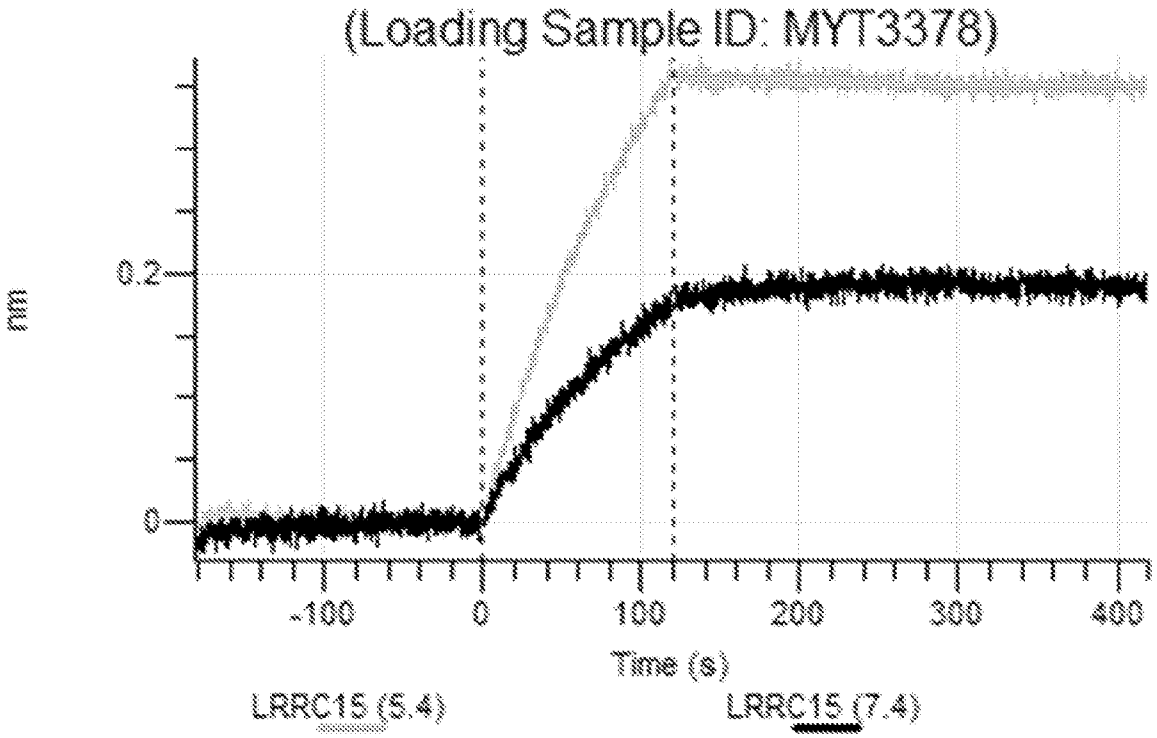

(Loading Sample ID: MYT3378)
nm
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26J

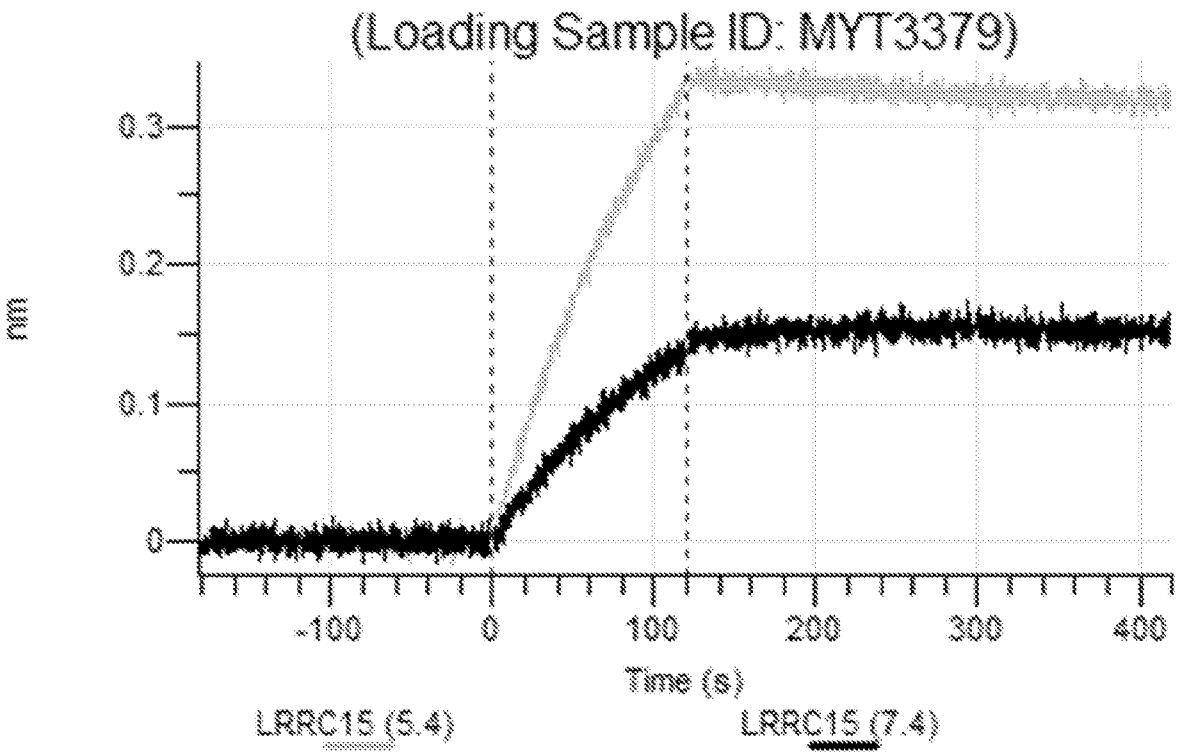

(Loading Sample ID: MYT3379)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26K

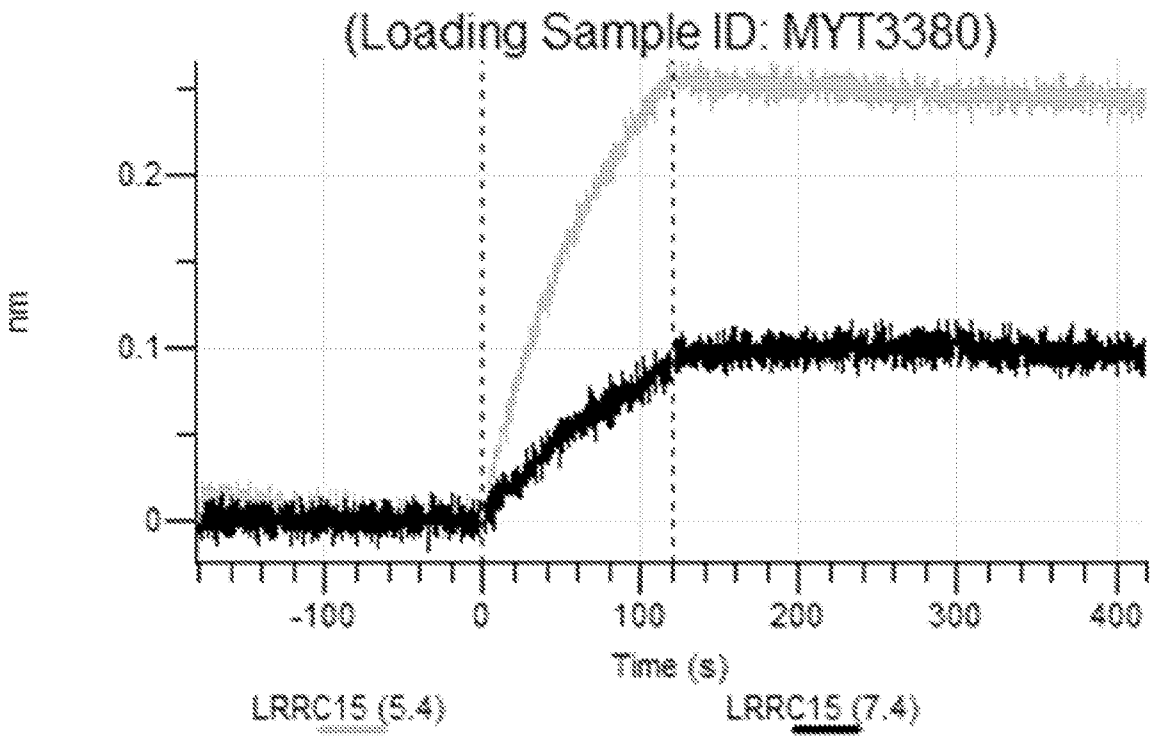

(Loading Sample ID: MYT3380)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26L

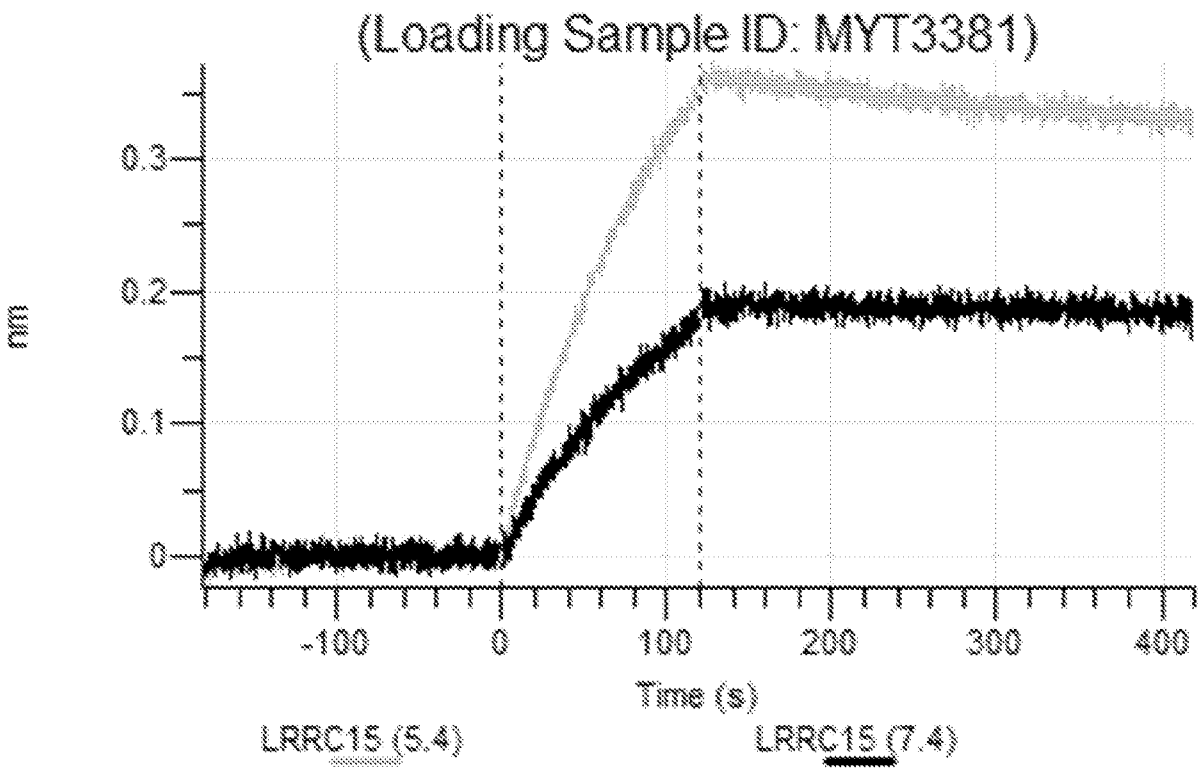

(Loading Sample ID: MYT3381)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26M

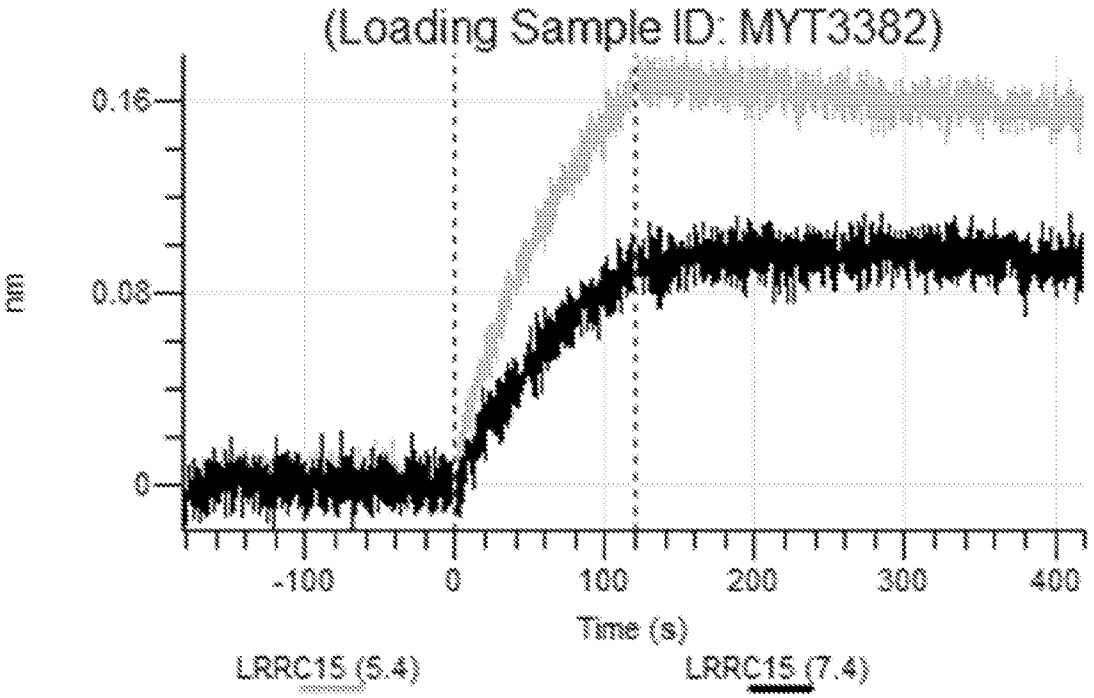

(Loading Sample ID: MYT3382)
0.16
0.08
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26N

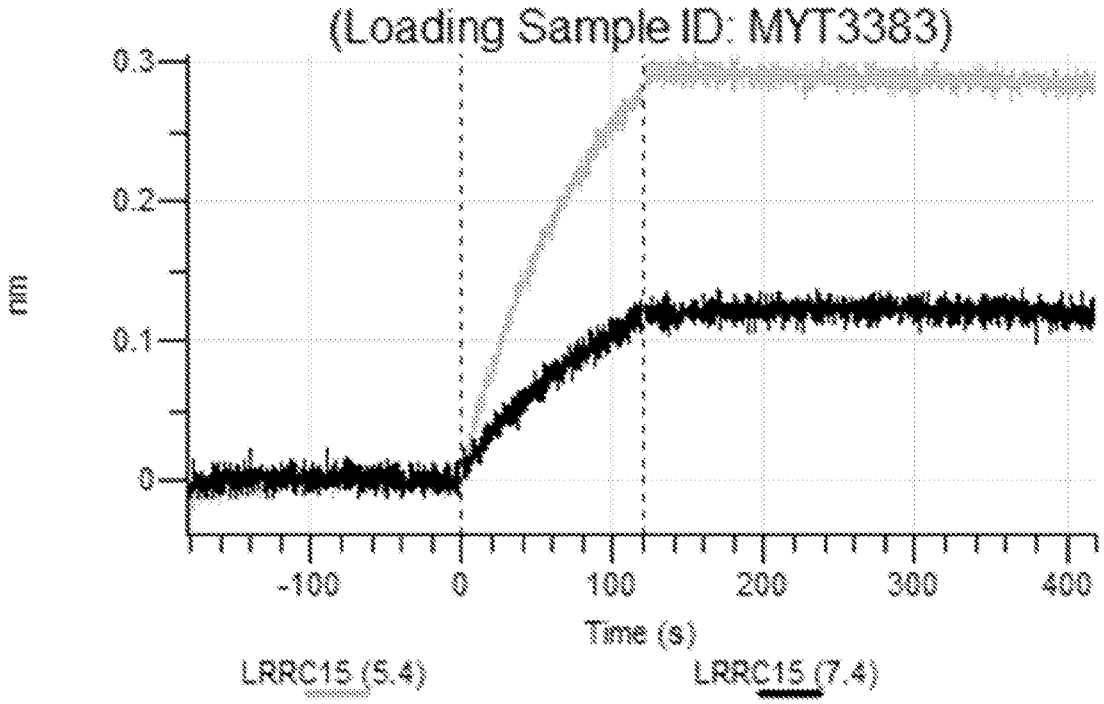

(Loading Sample ID: MYT3383)
0.3
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26O

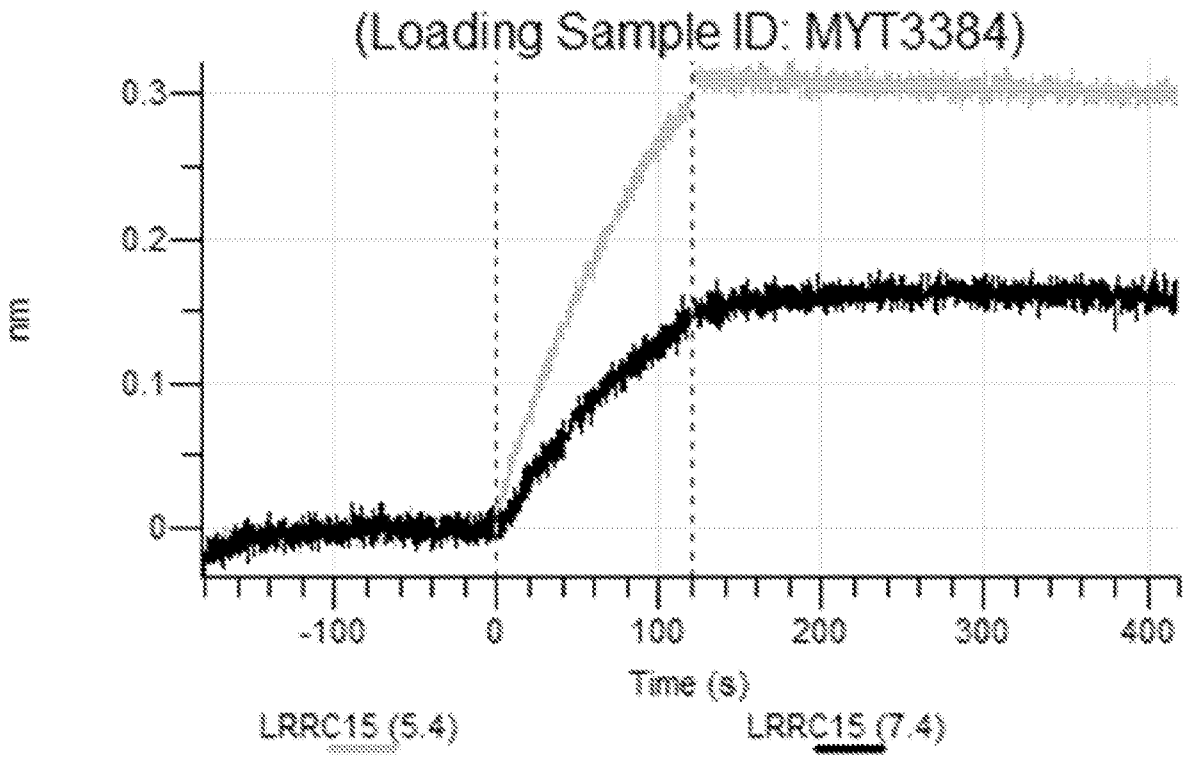

(Loading Sample ID: MYT3384)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26P

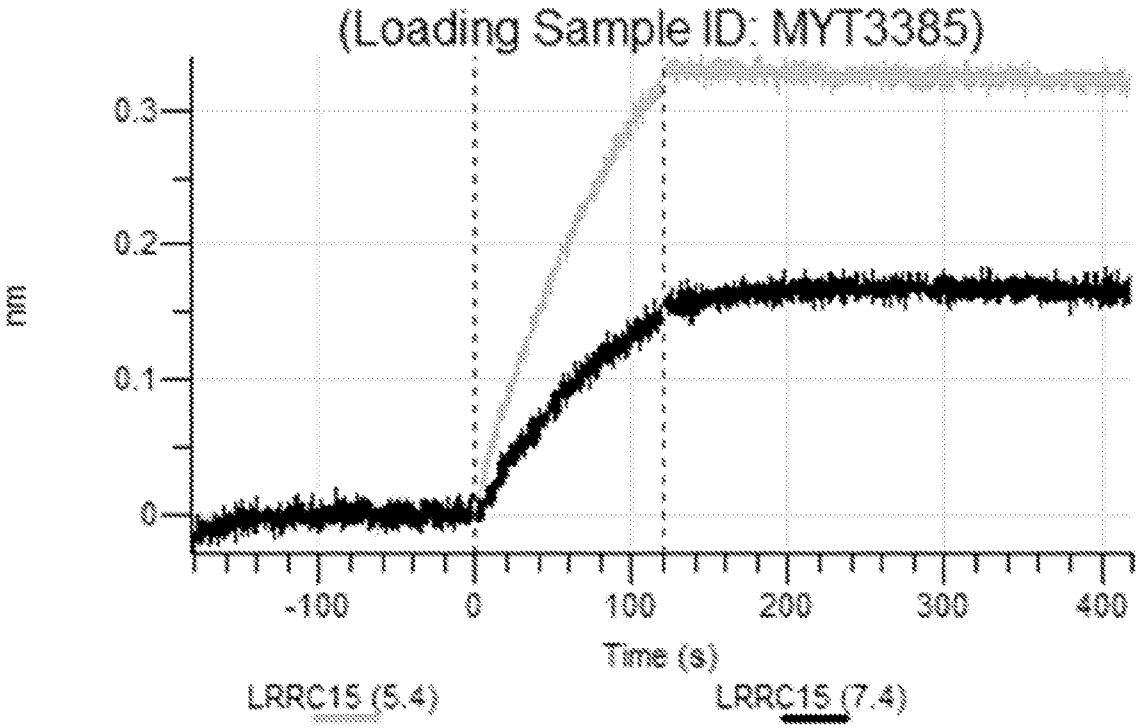

(Loading Sample ID: MYT3385)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26Q

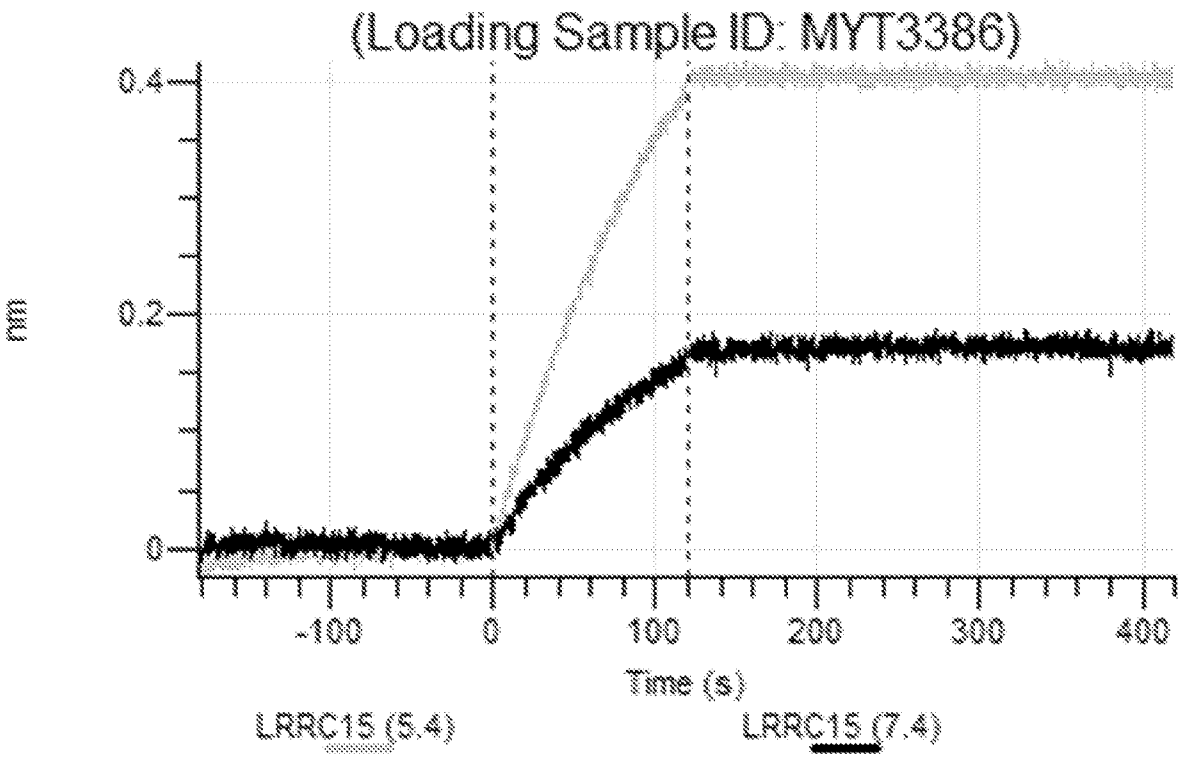

(Loading Sample ID: MYT3386)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26R

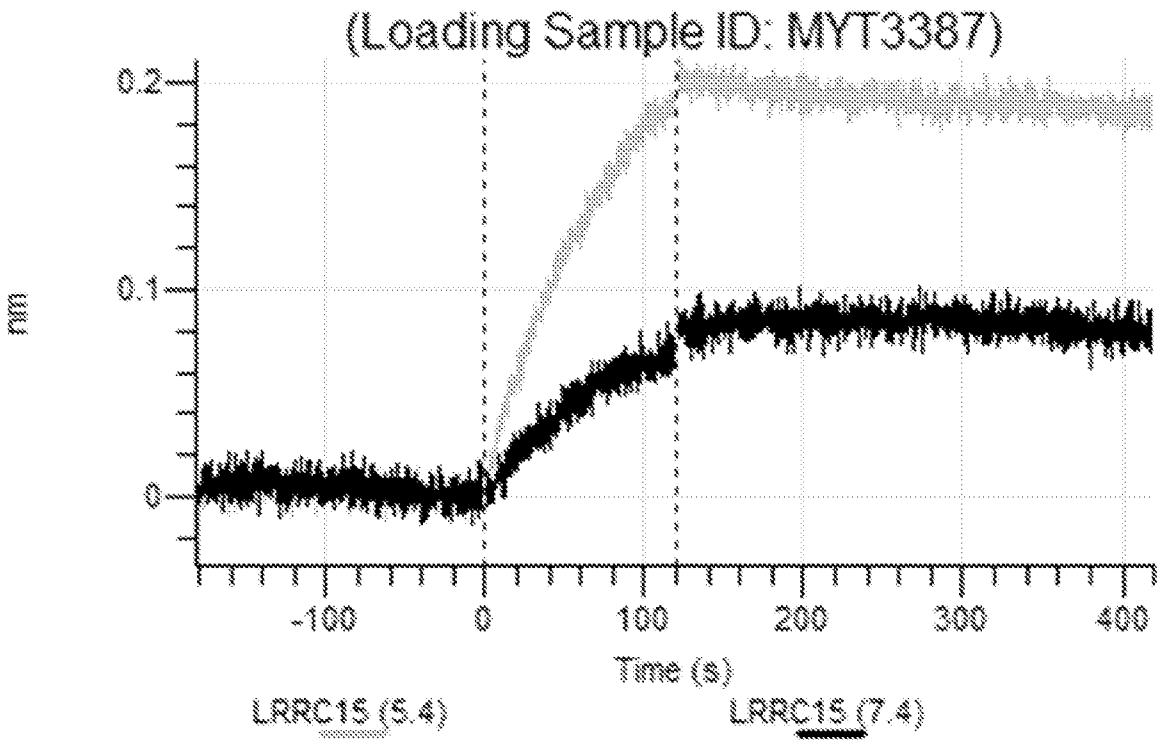

(Loading Sample ID: MYT3387)
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26S

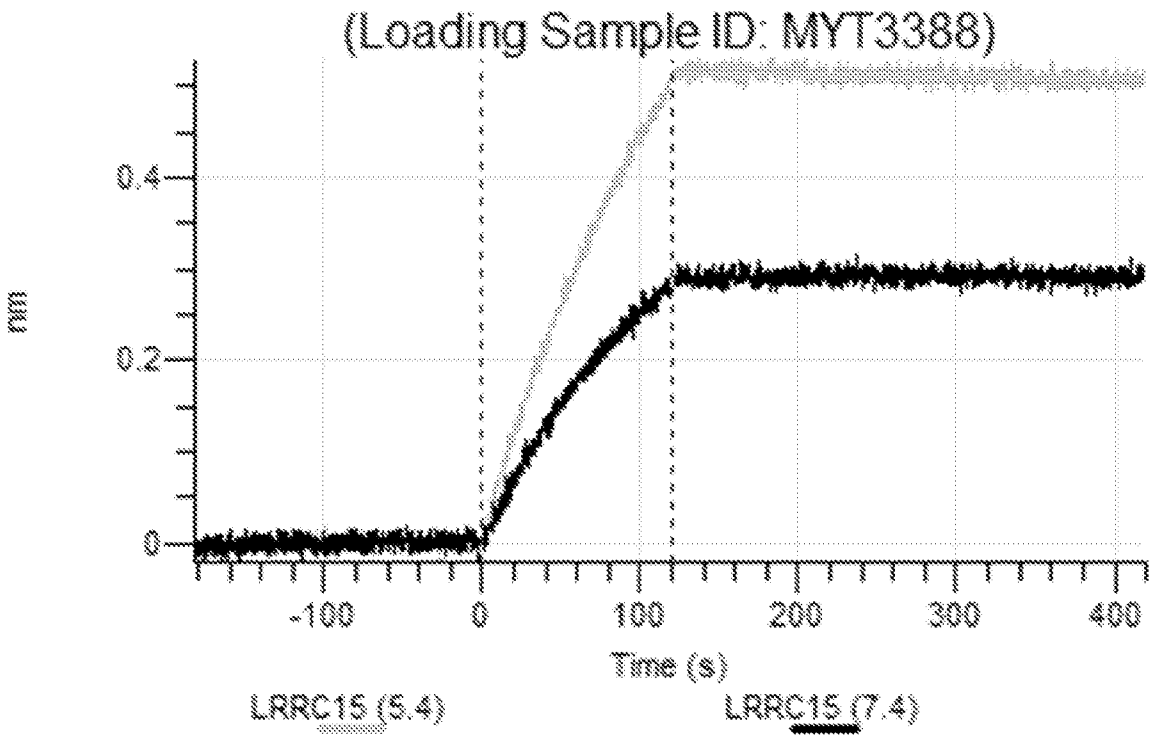

(Loading Sample ID: MYT3388)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26T

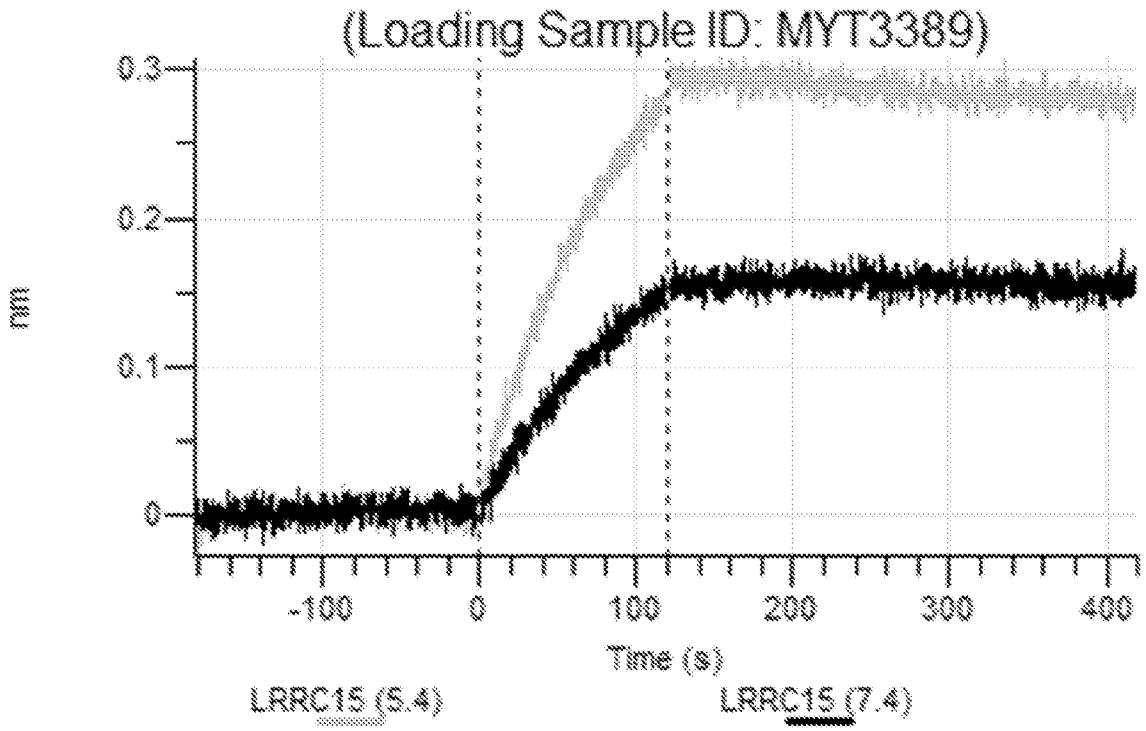

(Loading Sample ID: MYT3389)
0.3
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26U

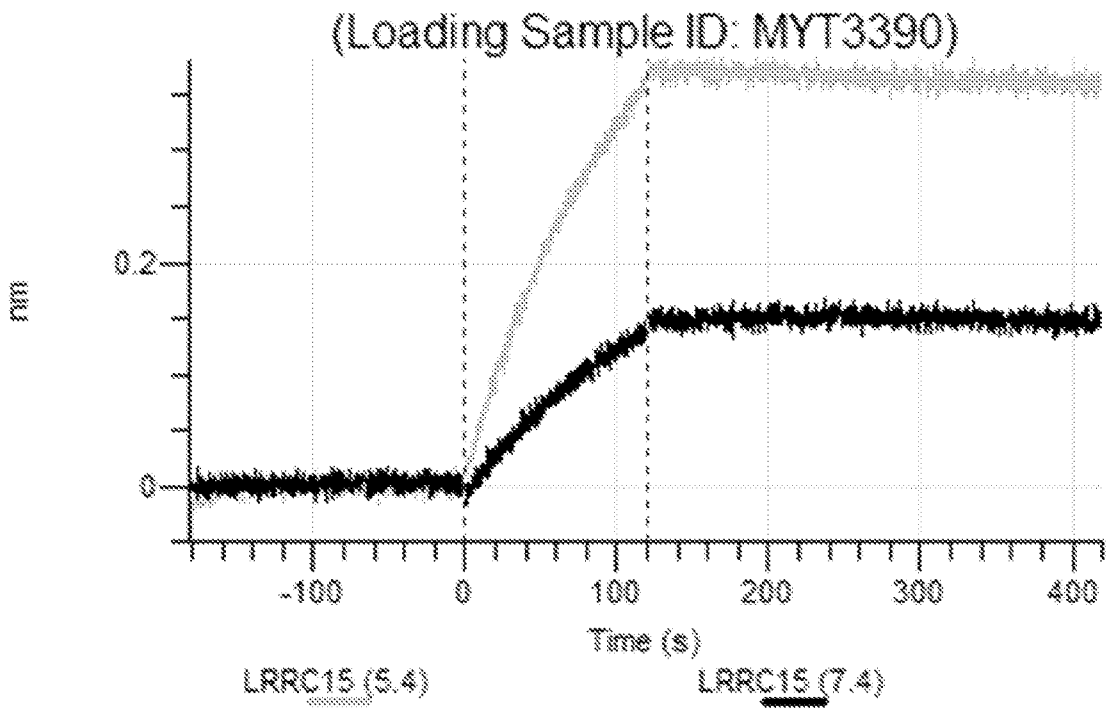

(Loading Sample ID: MYT3390)
nm
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26V

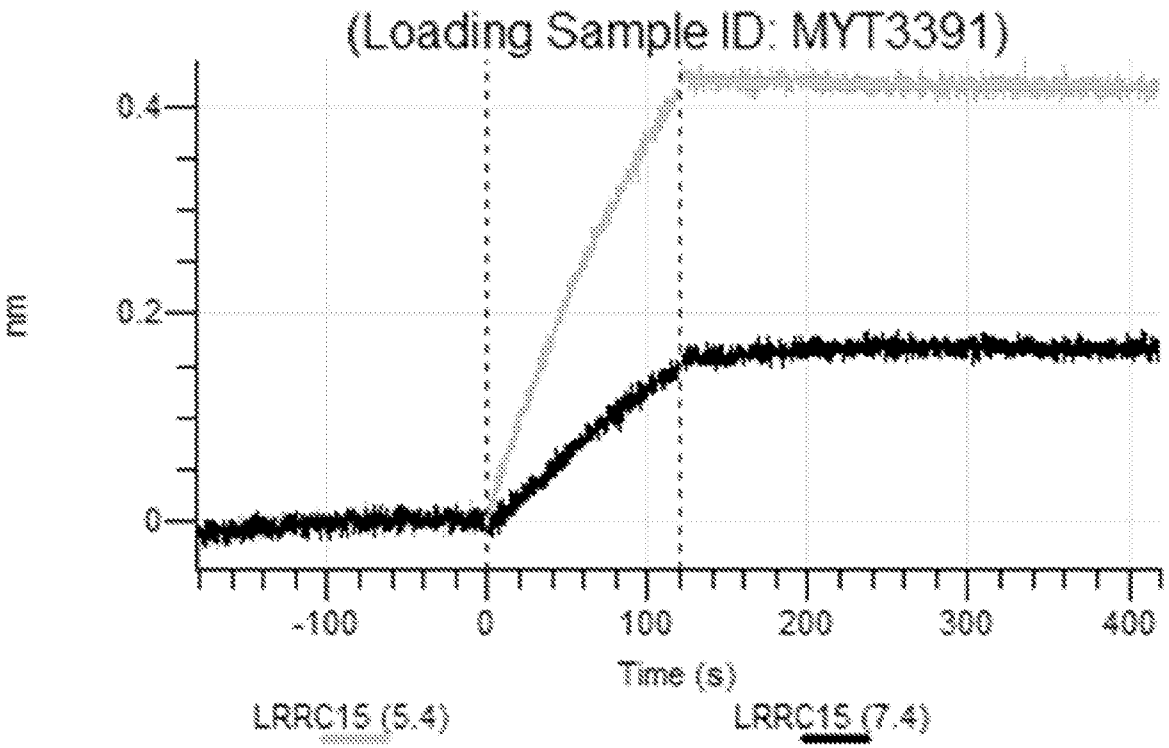

(Loading Sample ID: MYT3391)
nm
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26W

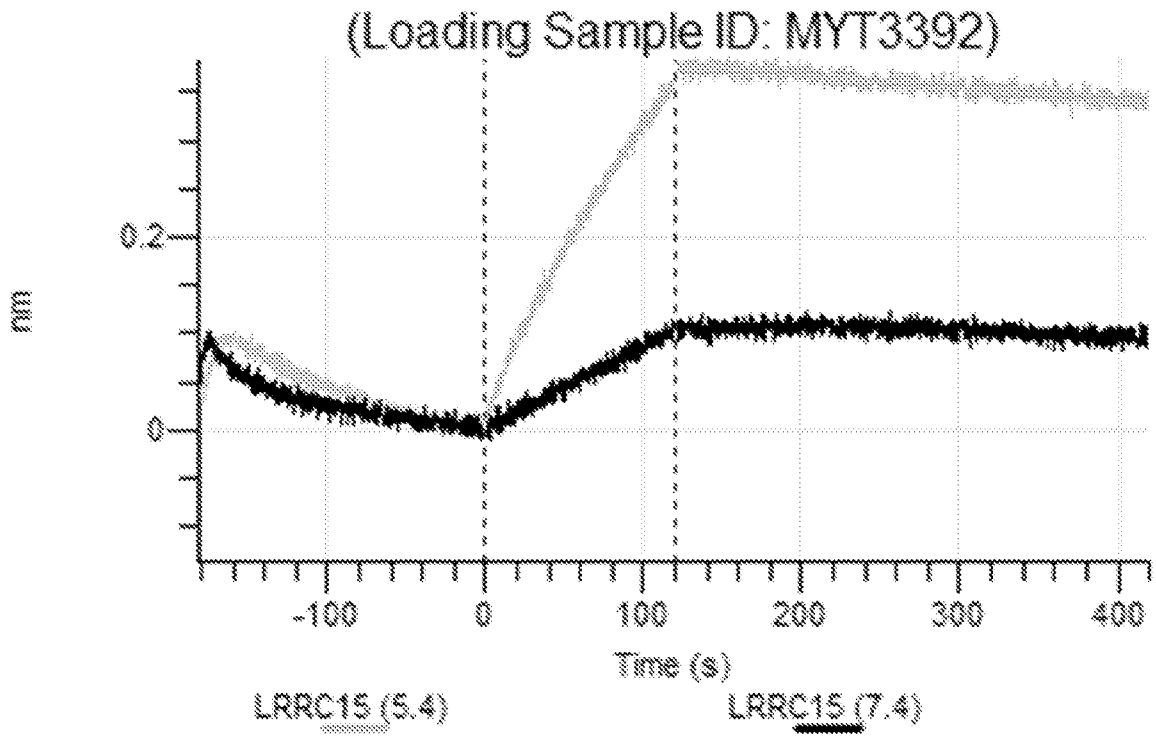

(Loading Sample ID: MYT3392)
nm
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26X

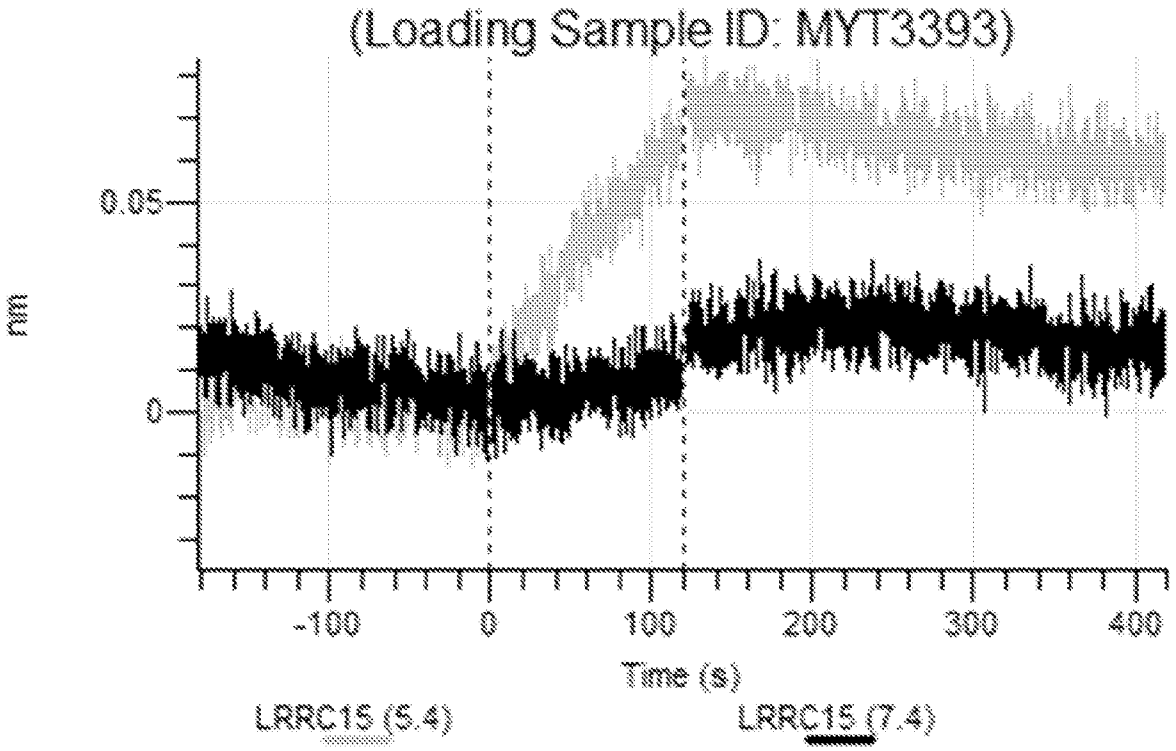

(Loading Sample ID: MYT3393)
0.05
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26Y

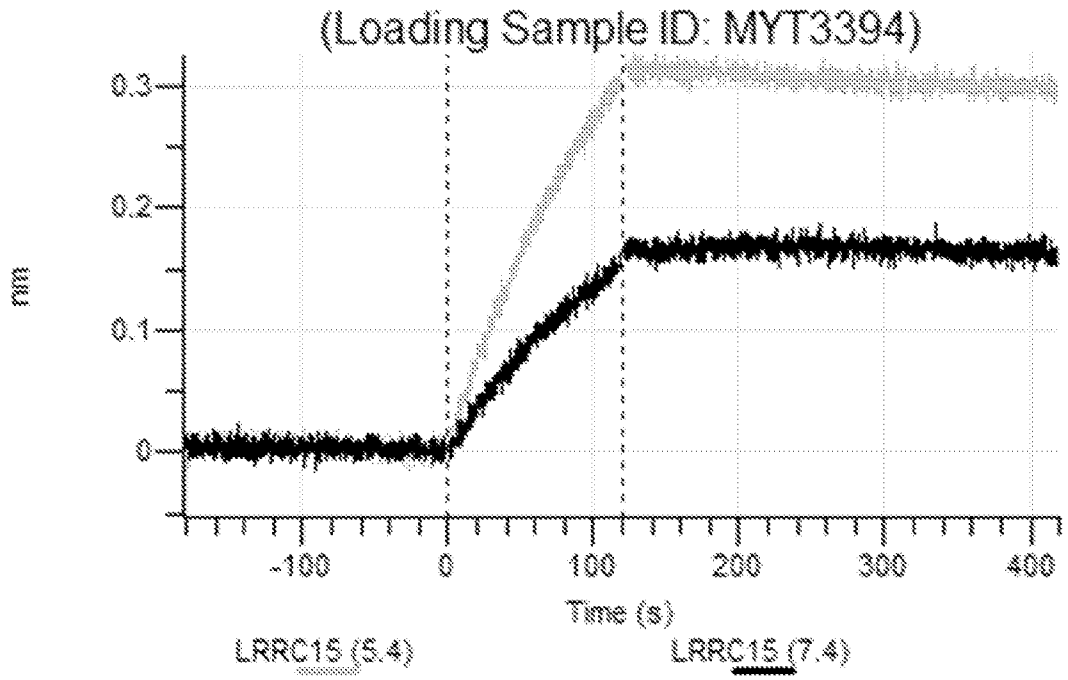

(Loading Sample ID: MYT3394)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26Z

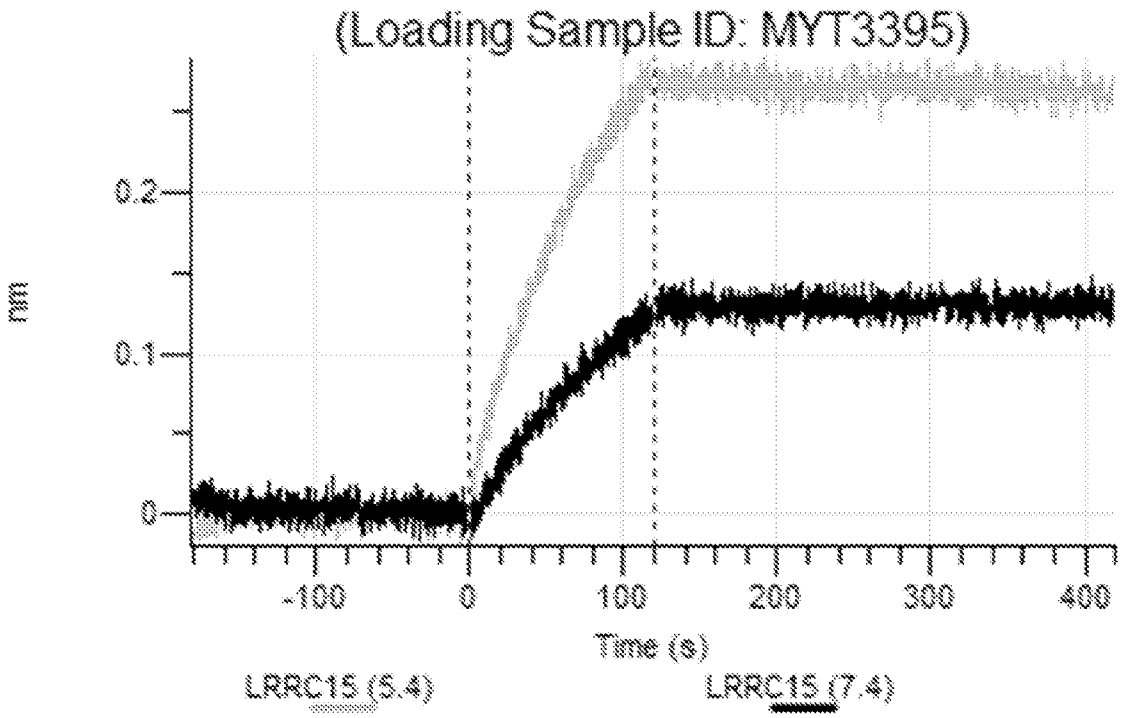

(Loading Sample ID: MYT3395)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26AA

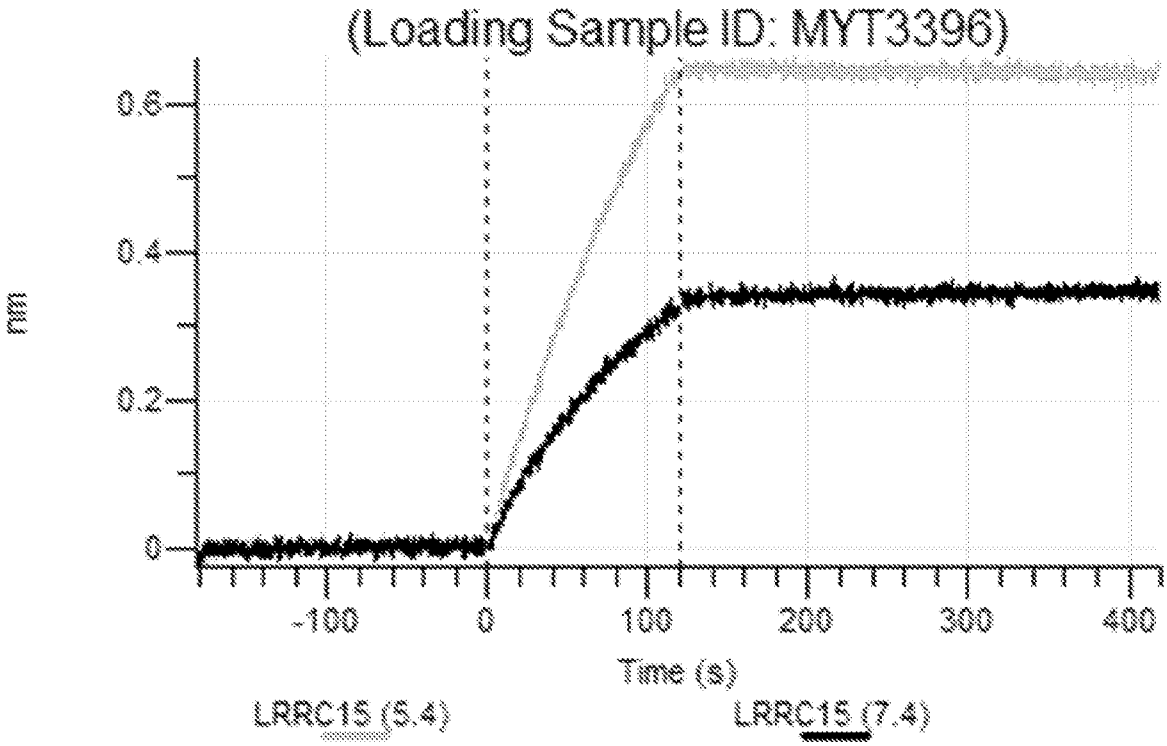

(Loading Sample ID: MYT3396)
nm
0.6
0.4
0.2
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26AB

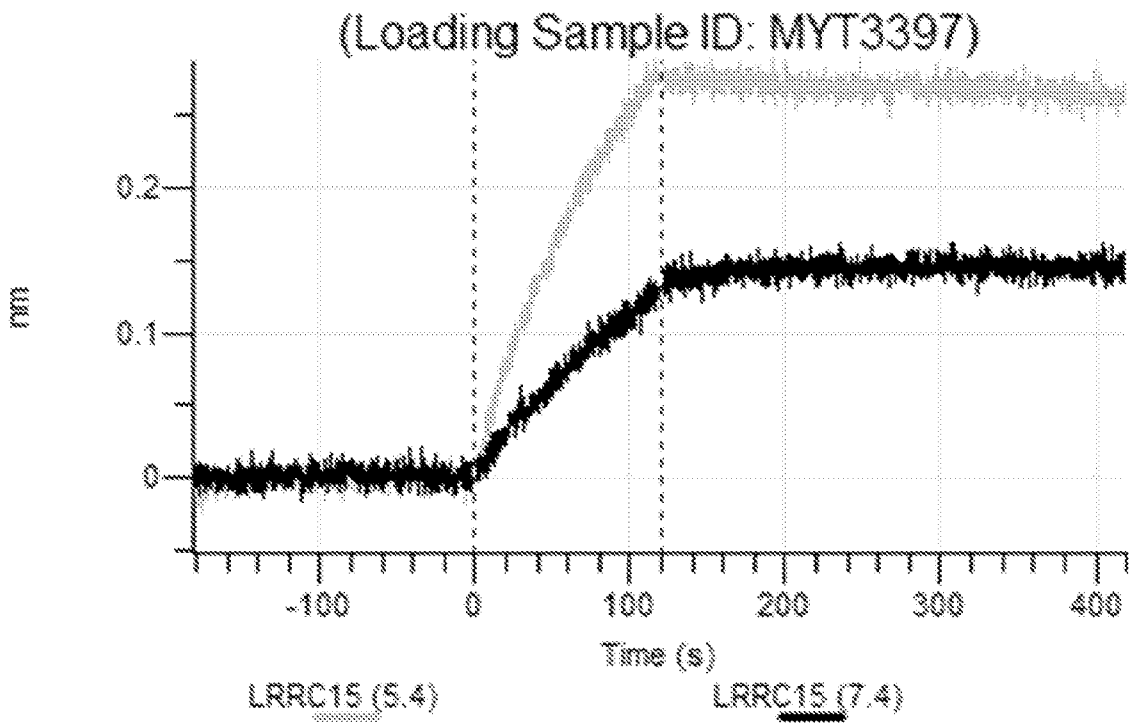

(Loading Sample ID: MYT3397)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26AC

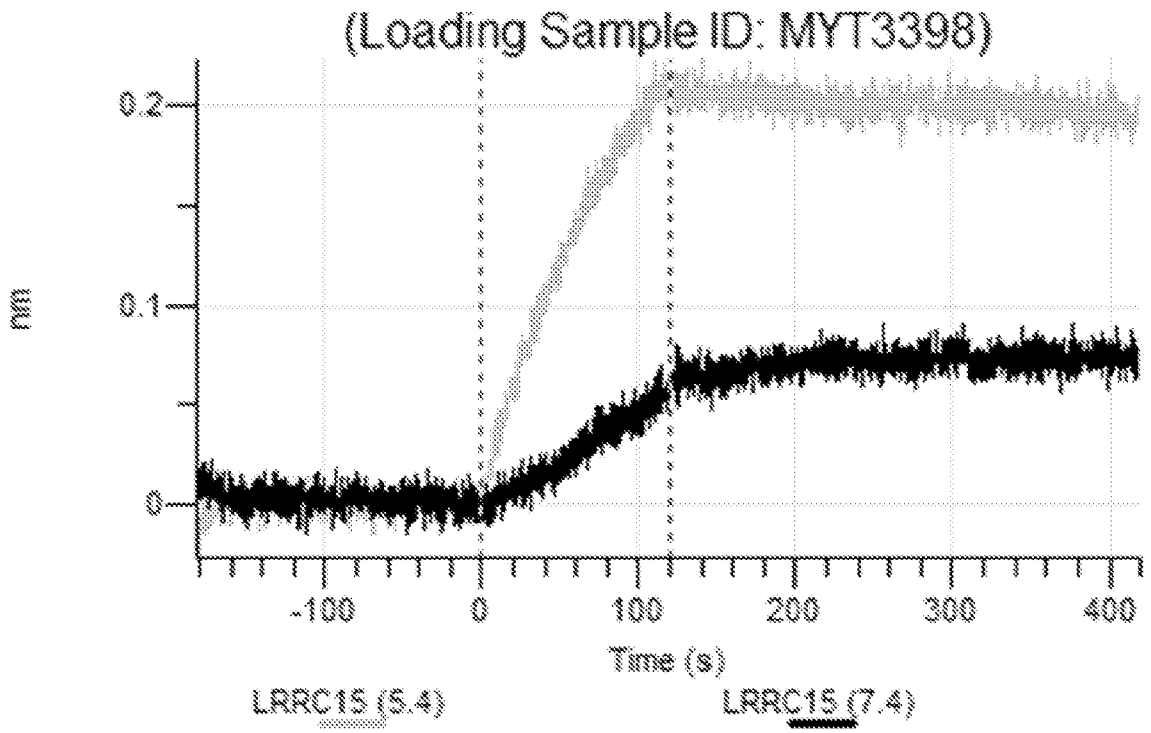

(Loading Sample ID: MYT3398)
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 26AD

	Heavy	Light	CDRH1	CDRH2	CDRH3	CDRL1	CDRL2	CDRL3
MYT3325 (huAD208.4.1)	178	179	180	181	182	183	184	185
MYT3369	178	228						
MYT3370	178	229						
MYT3371	178	230						
MYT3372	178	231						
MYT3373	178	232						
MYT3374	178	233						
MYT3375	178	234						
MYT3376	178	235						
MYT3377	178	236						
MYT3378	178	237						
MYT3379	178	238						
MYT3380	178	239						
MYT3381	178	240						
MYT3382	178	241						
MYT3383	178	242						
MYT3384	178	243						
MYT3385	178	244						
MYT3386	178	245						
MYT3387	178	246						
MYT3388	178	247						
MYT3389	178	248						
MYT3390	178	249						
MYT3391	178	250						
MYT3392	178	251						
MYT3393	178	252						
MYT3394	178	253						
MYT3395	178	254						
MYT3396	178	255						
MYT3397	178	256						
MYT3398	178	257						

FIG. 27

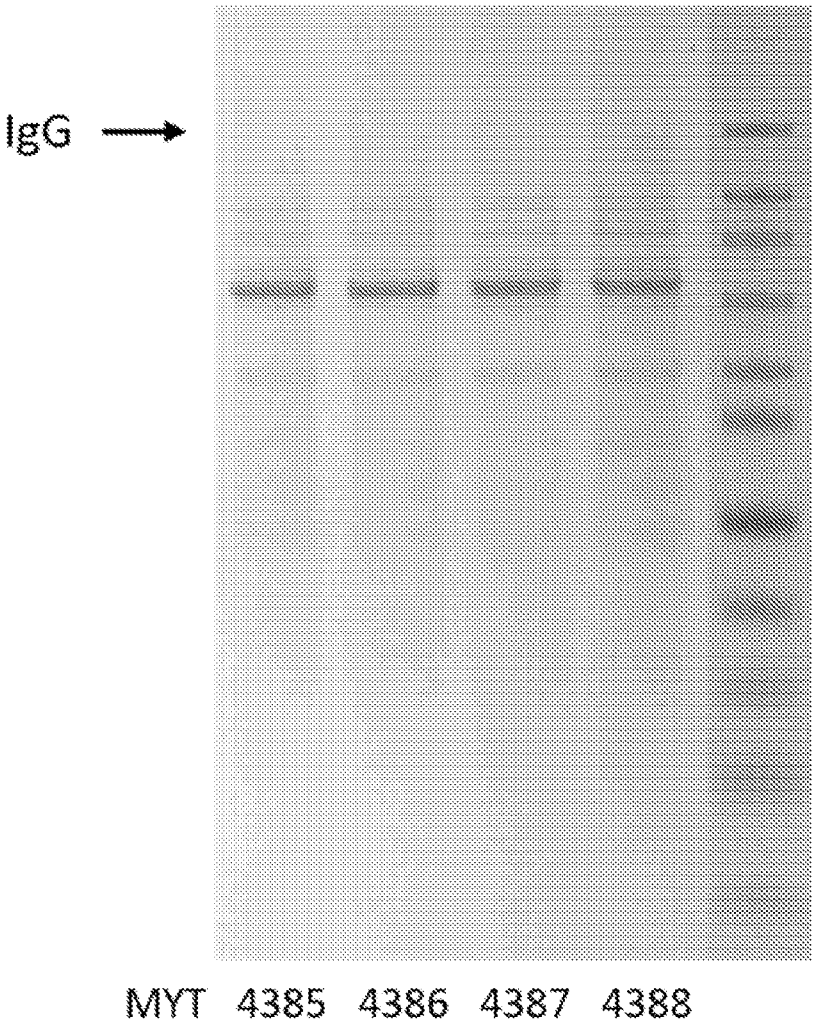


FIG. 28

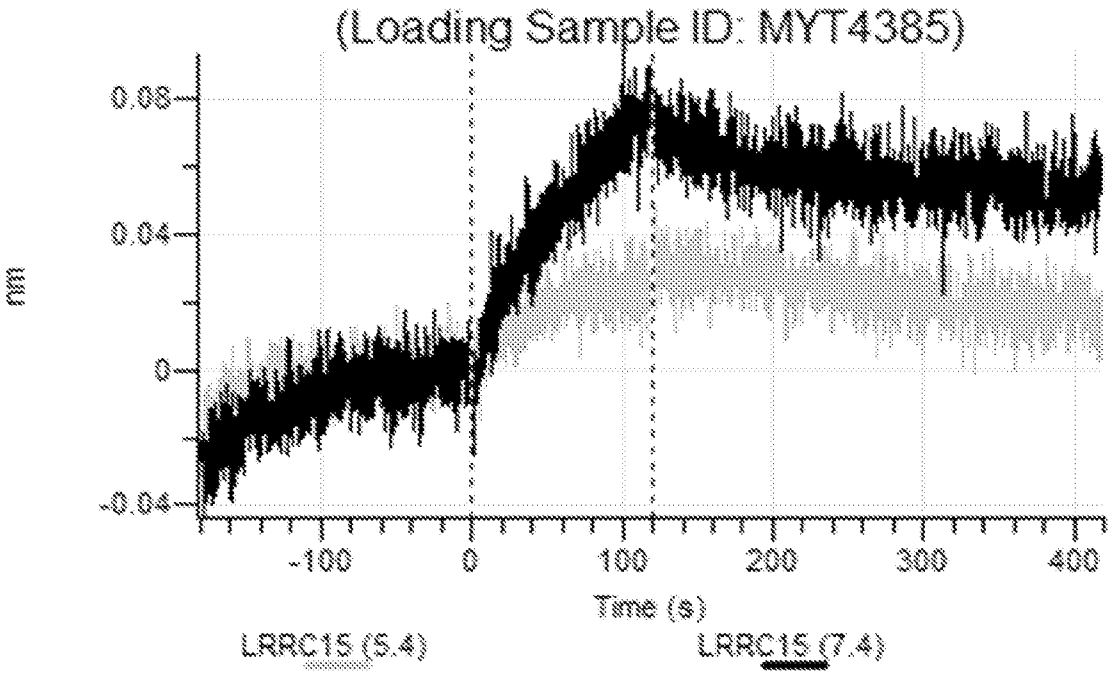

(Loading Sample ID: MYT4385)
0.08
0.04
0
-0.04
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 29A

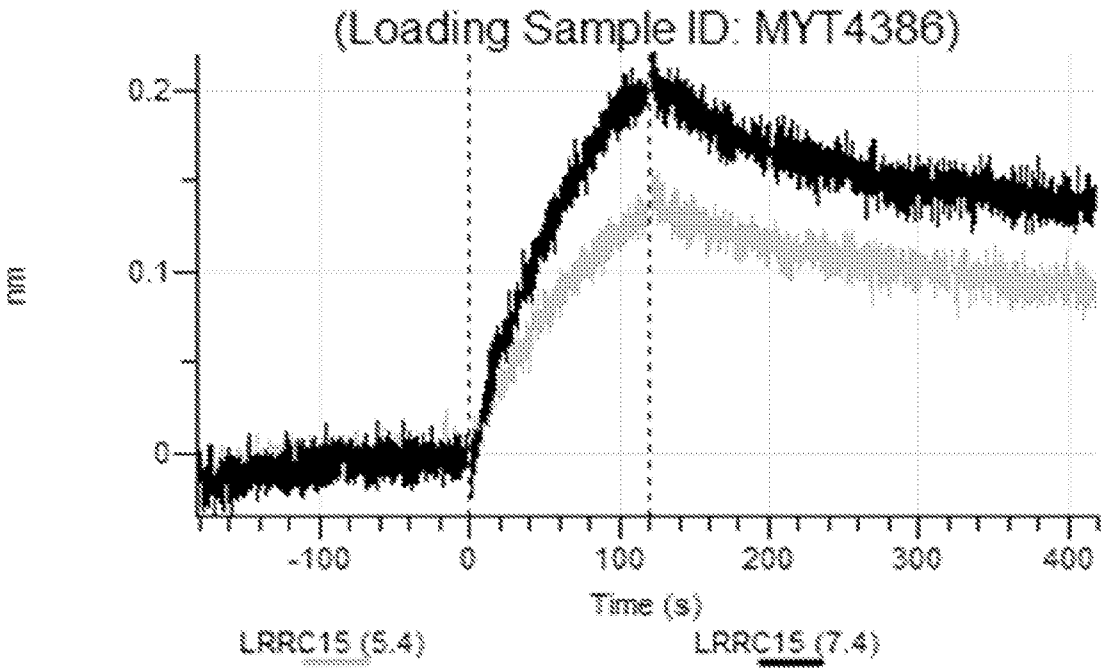

(Loading Sample ID: MYT4386)
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 29B

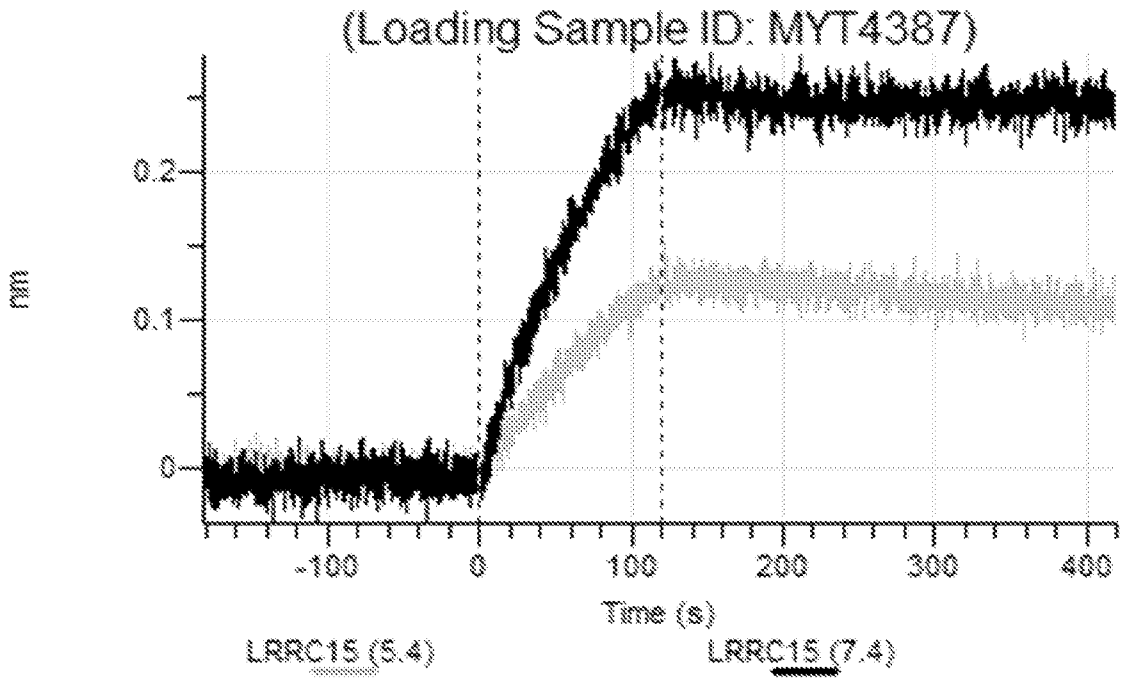

(Loading Sample ID: MYT4387)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 29C

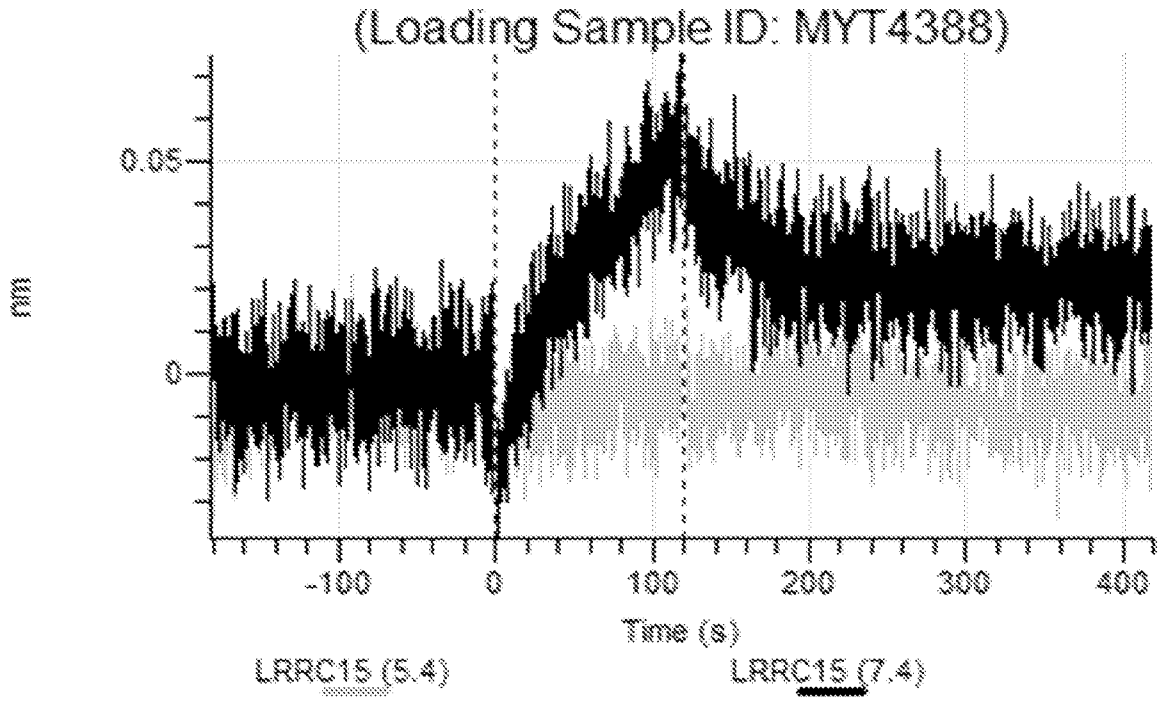

(Loading Sample ID: MYT4388)
0.05
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 29D

	Heavy	Light	CDRH1	CDRH2	CDRH3	CDRL1	CDRL2	CDRL3
MYT3325 (huAD208.4.1)	178	179	180	181	182	183	184	185
MYT4385	258	179						
MYT4386	259	179						
MYT4387	260	179						
MYT4388	261	179						

FIG. 30

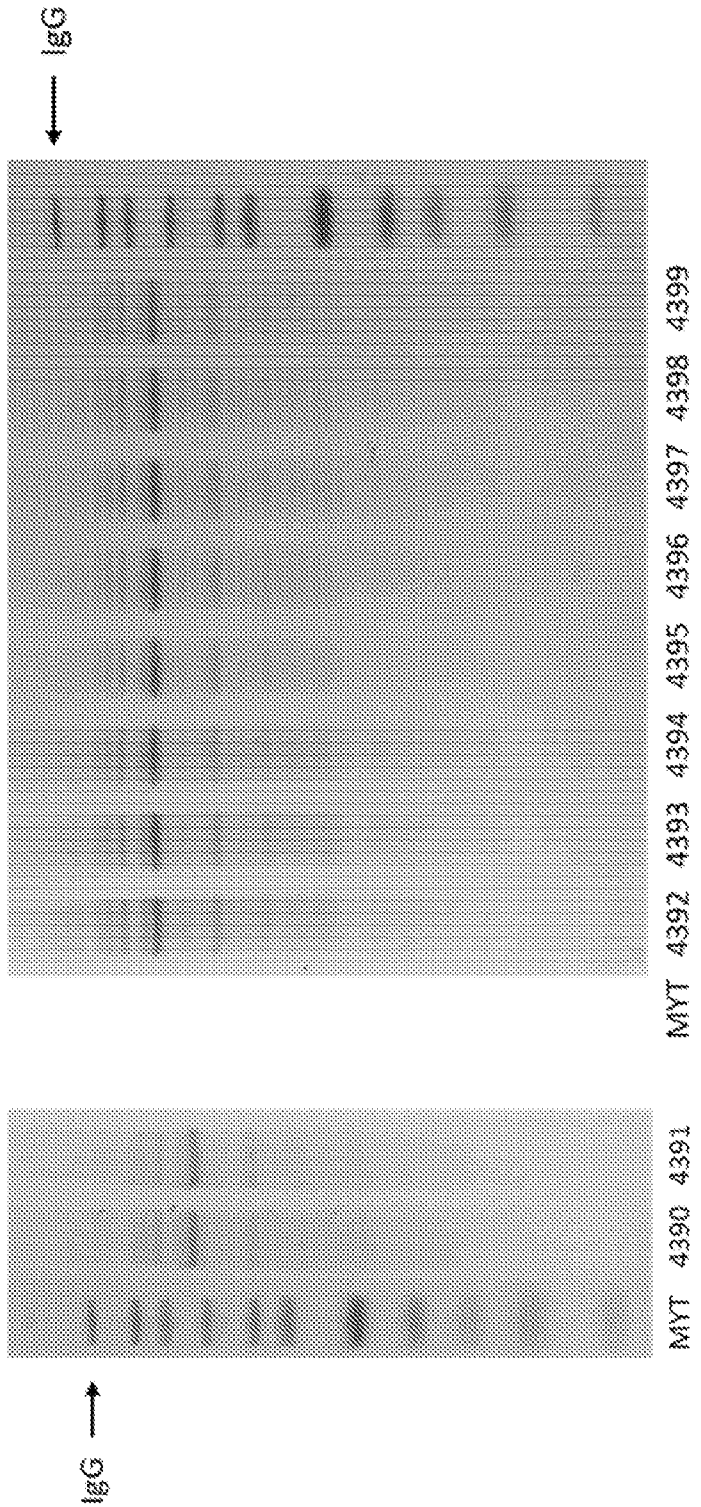

IgG
MYT 4392 4393 4394 4395 4396 4397 4398 4399
MYT 4390 4391
IgG

FIG. 31

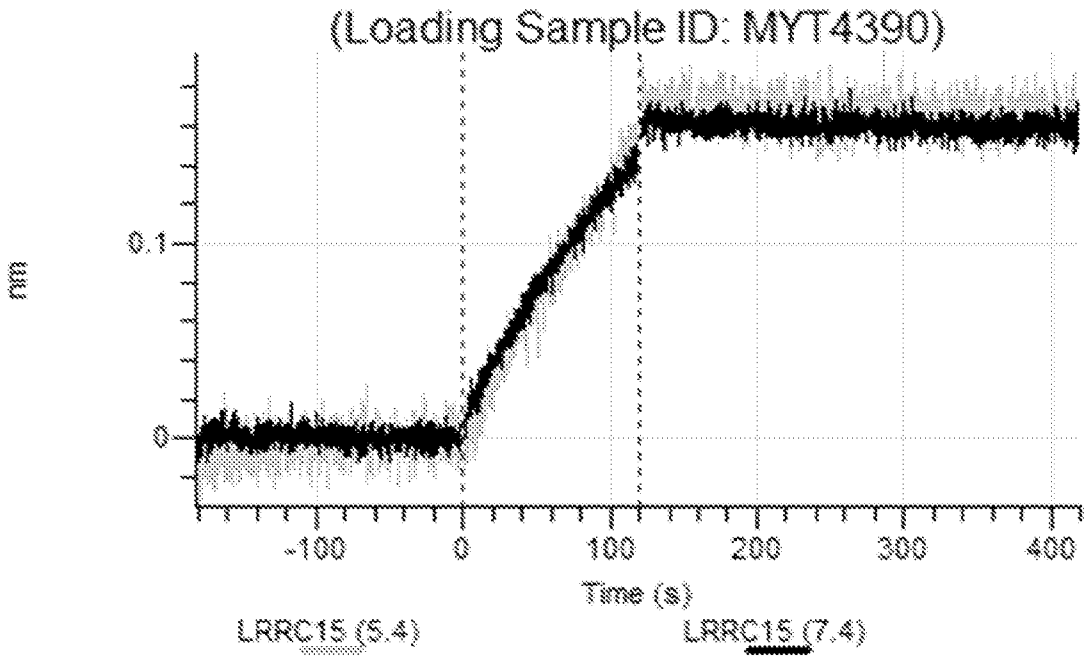

(Loading Sample ID: MYT4390)
nm
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 32A

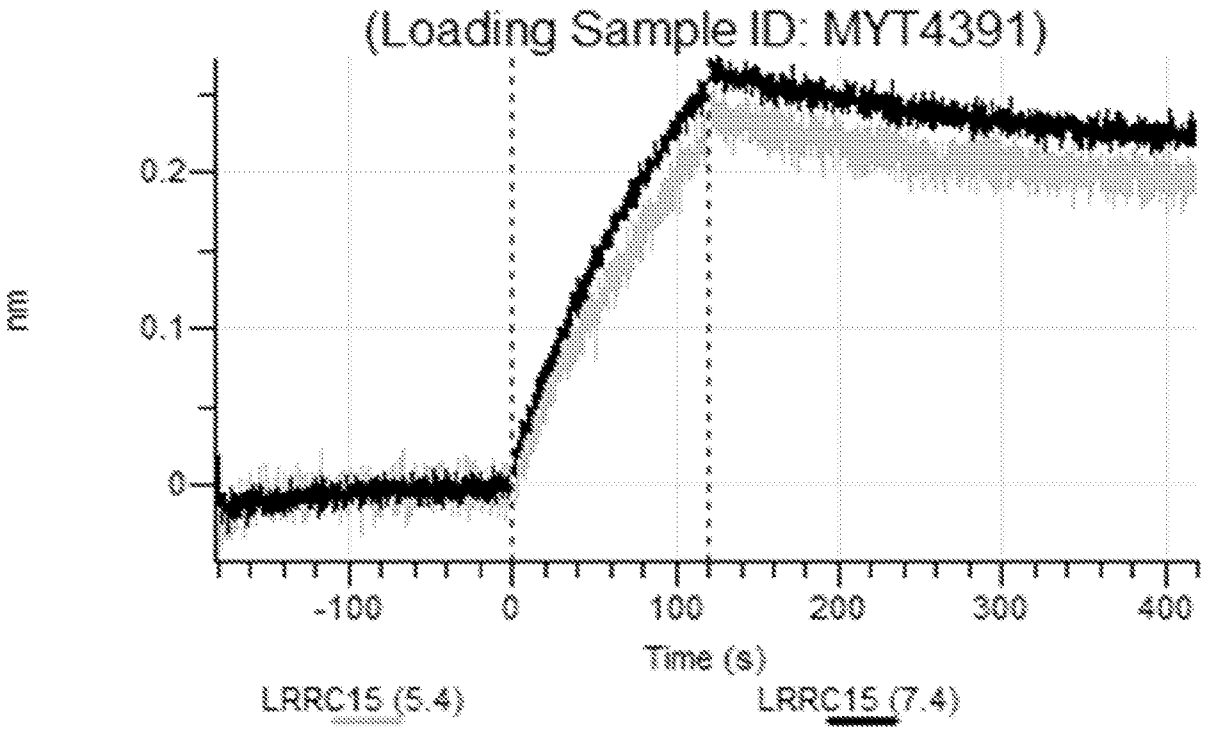

(Loading Sample ID: MYT4391)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 32B

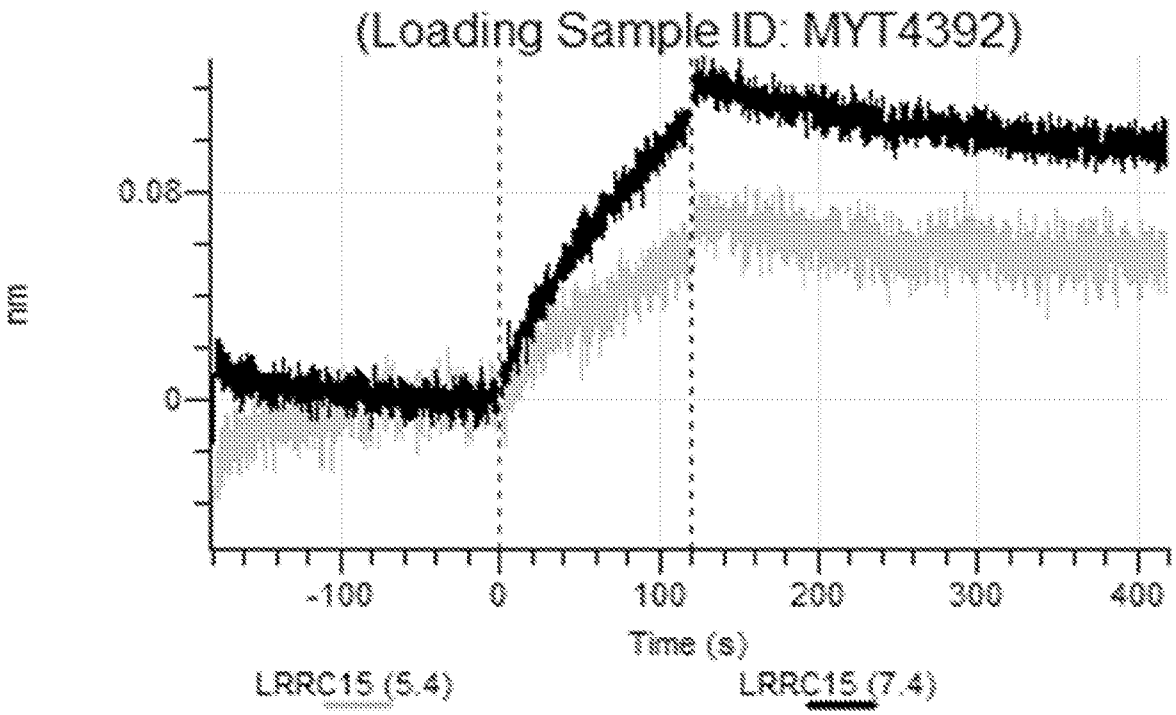

(Loading Sample ID: MYT4392)
nm
0.08
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 32C

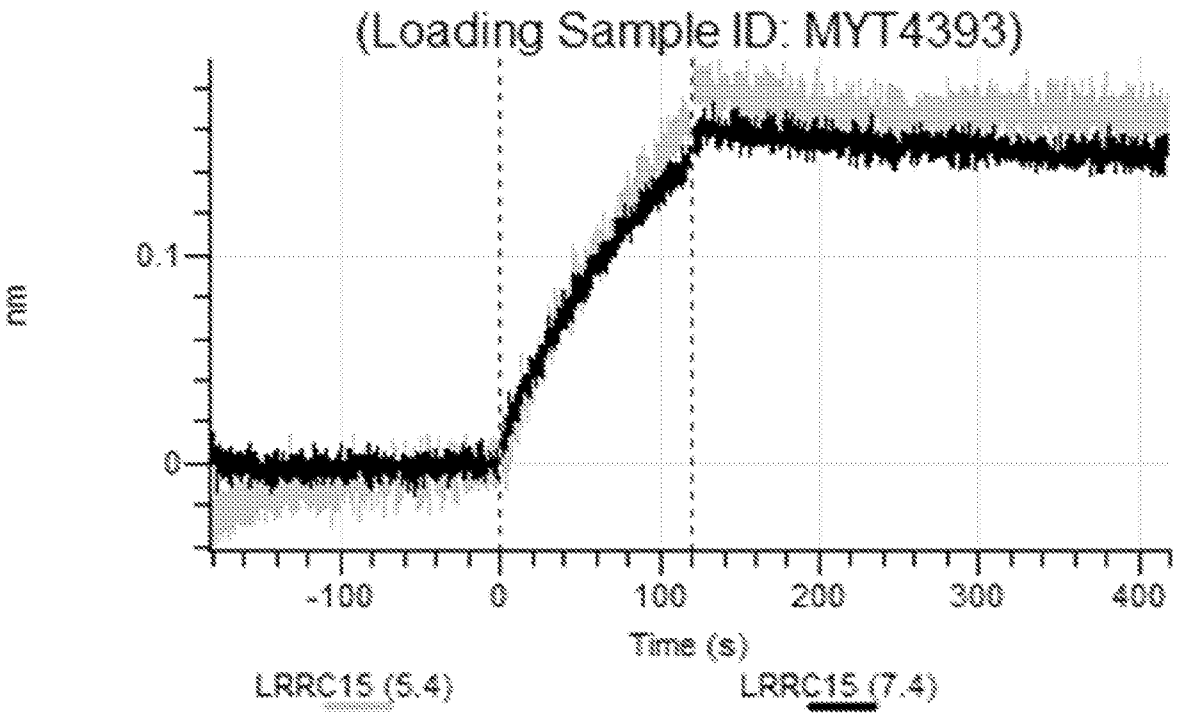

(Loading Sample ID: MYT4393)
nm
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 32D

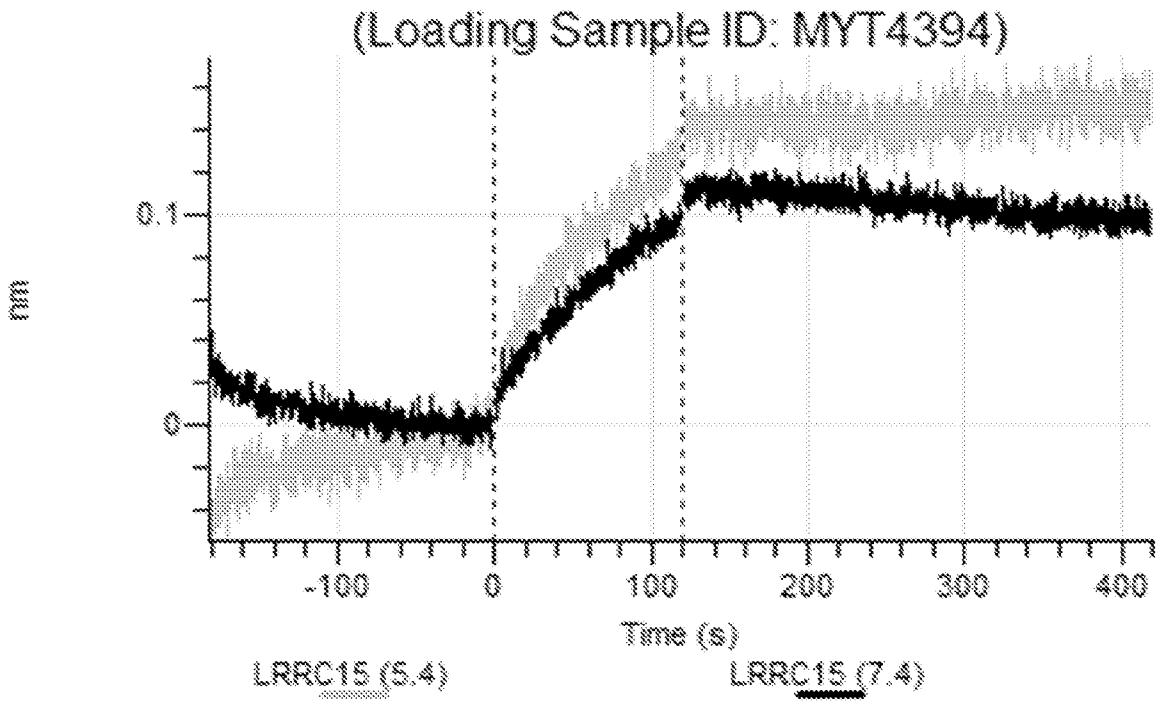

(Loading Sample ID: MYT4394)
nm
0.1
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 32E

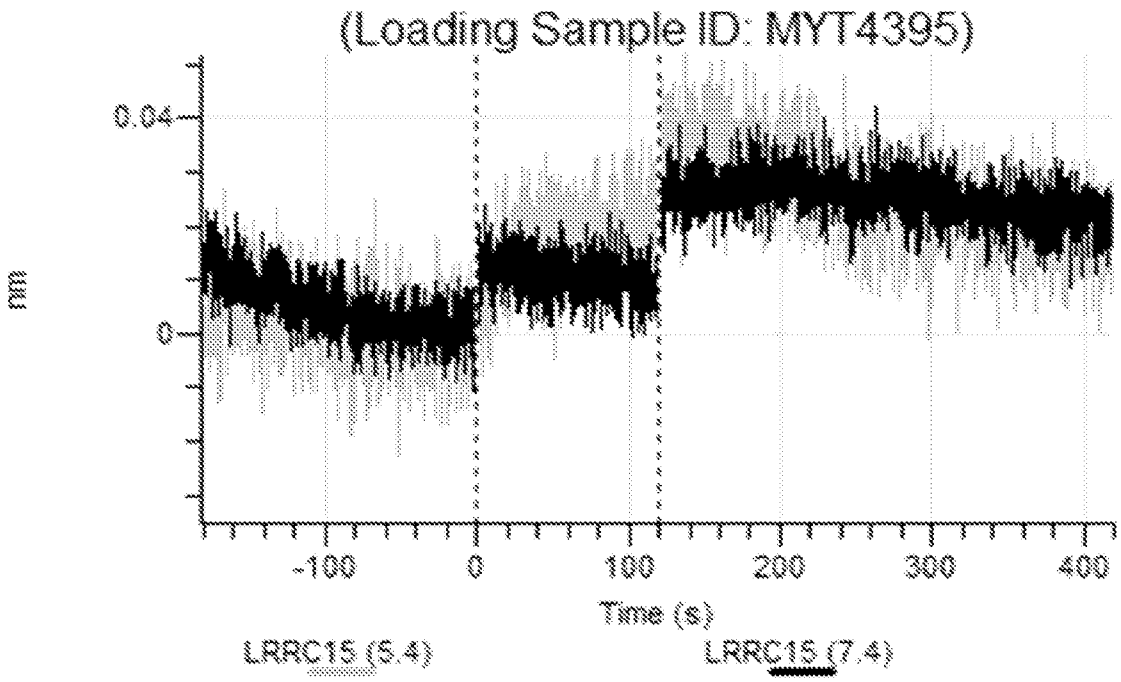

(Loading Sample ID: MYT4395)
0.04
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 32F

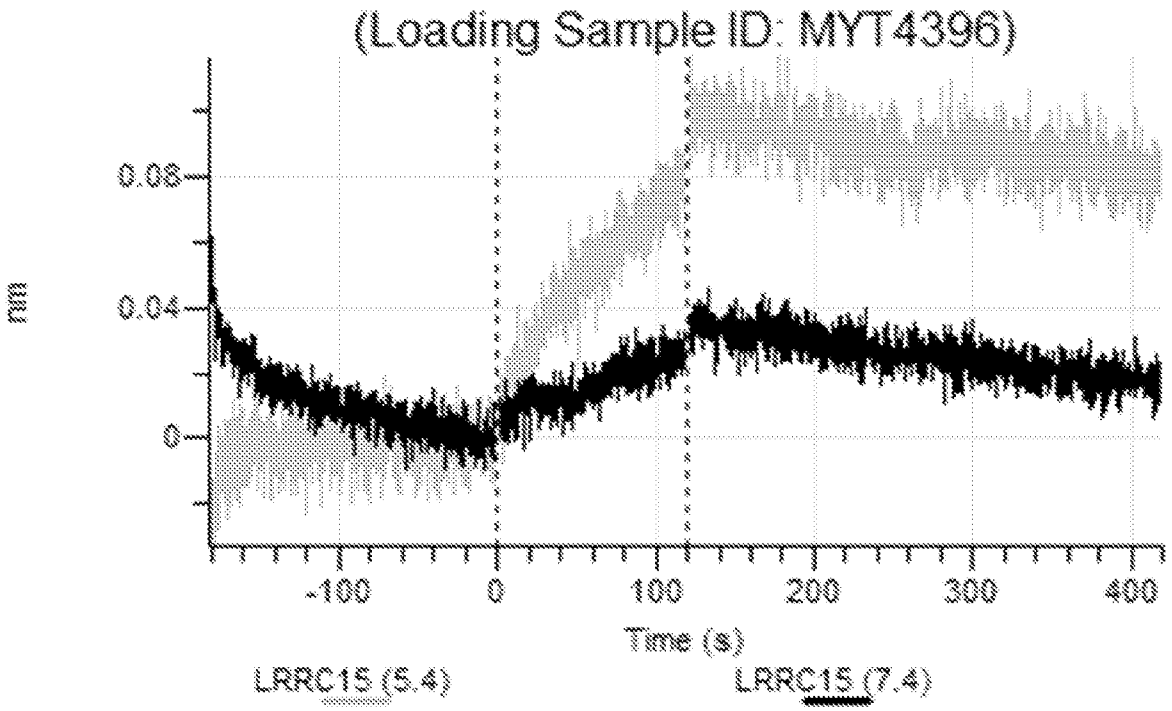

(Loading Sample ID: MYT4396)
nm
0.08
0.04
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 32G

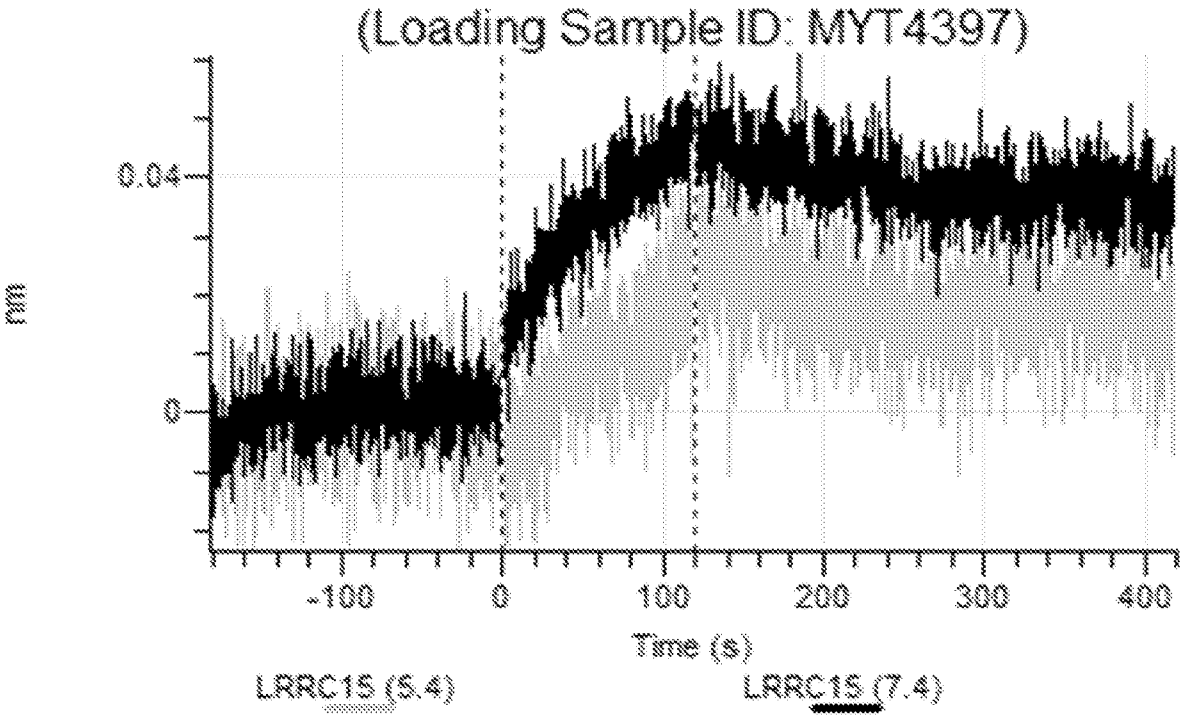

(Loading Sample ID: MYT4397)
nm
0.04
0
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 32H

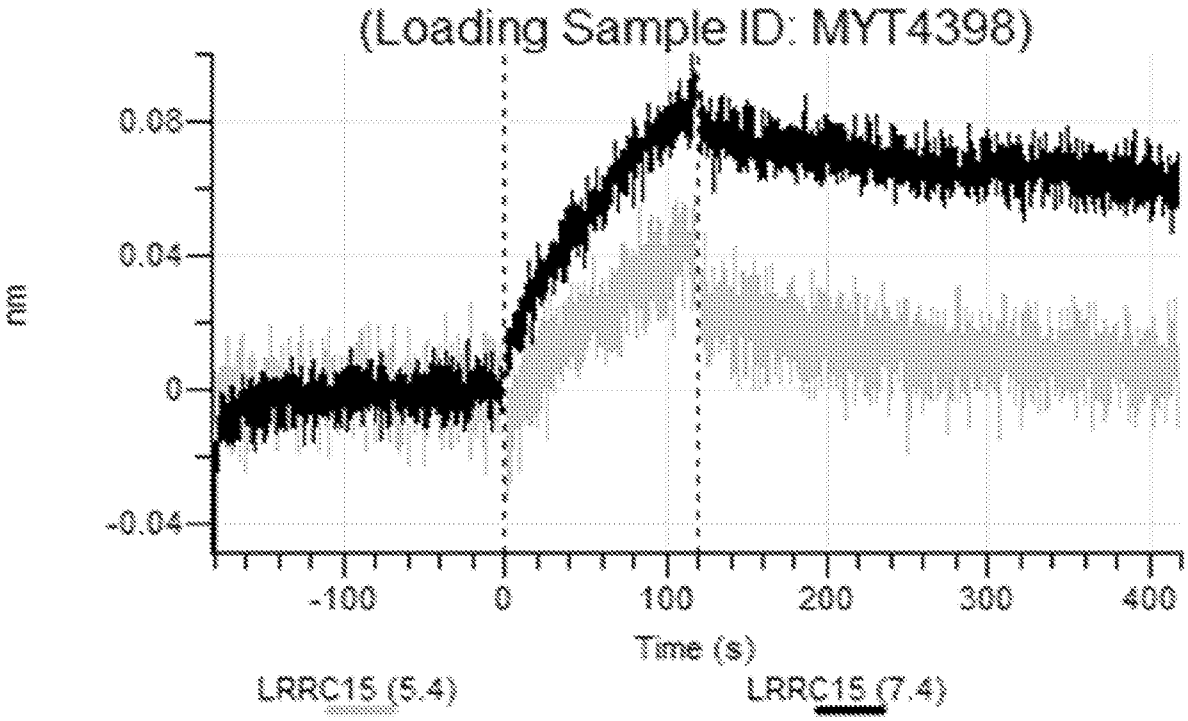

(Loading Sample ID: MYT4398)
0.08
0.04
0
-0.04
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 32I

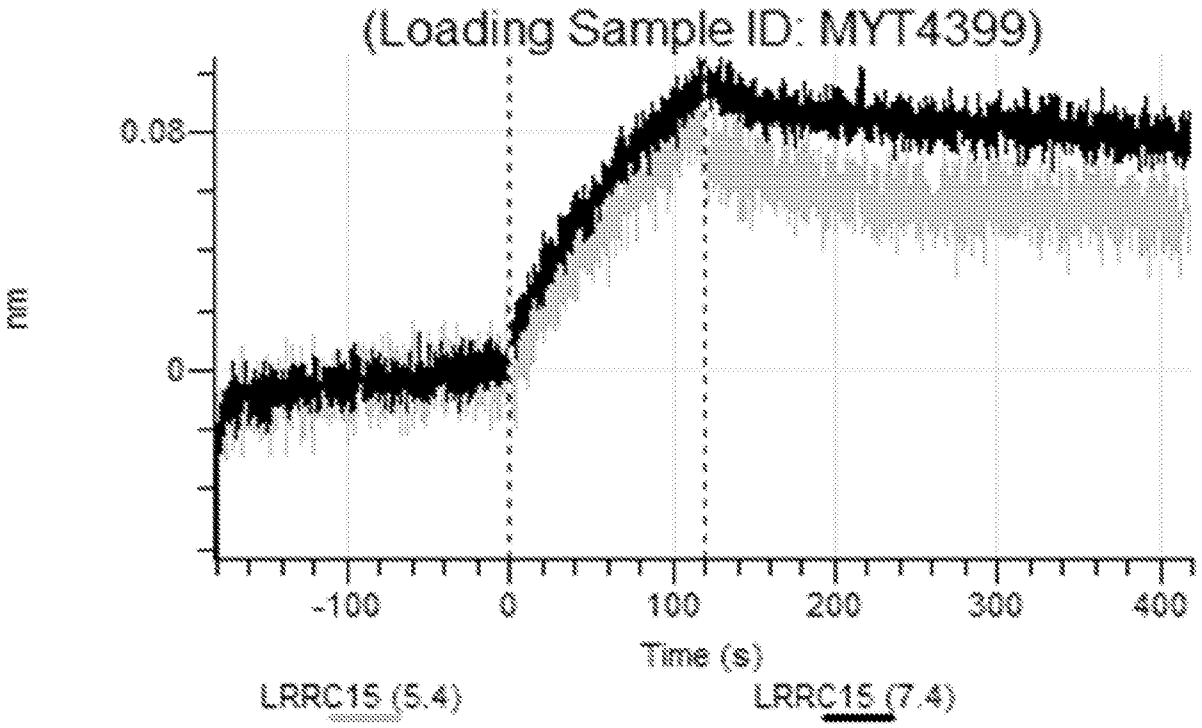

(Loading Sample ID: MYT4399)
0.08
0
nm
-100
0
100
200
300
400
Time (s)
LRRC15 (5.4)
LRRC15 (7.4)

FIG. 32J

	Heavy	Light	CDRH1	CDRH2	CDRH3	CDRL1	CDRL2	
MYT3325 (huAD208.4.1)	178	179	180	181	182	183	184	
MYT4390	178	262						
MYT4391	178	263						
MYT4392	178	264						
MYT4393	178	265						
MYT4394	178	266						
MYT4395	178	267						
MYT4396	178	268						
MYT4397	178	269						
MYT4398	178	270						
MYT4399	178	271						

FIG. 33

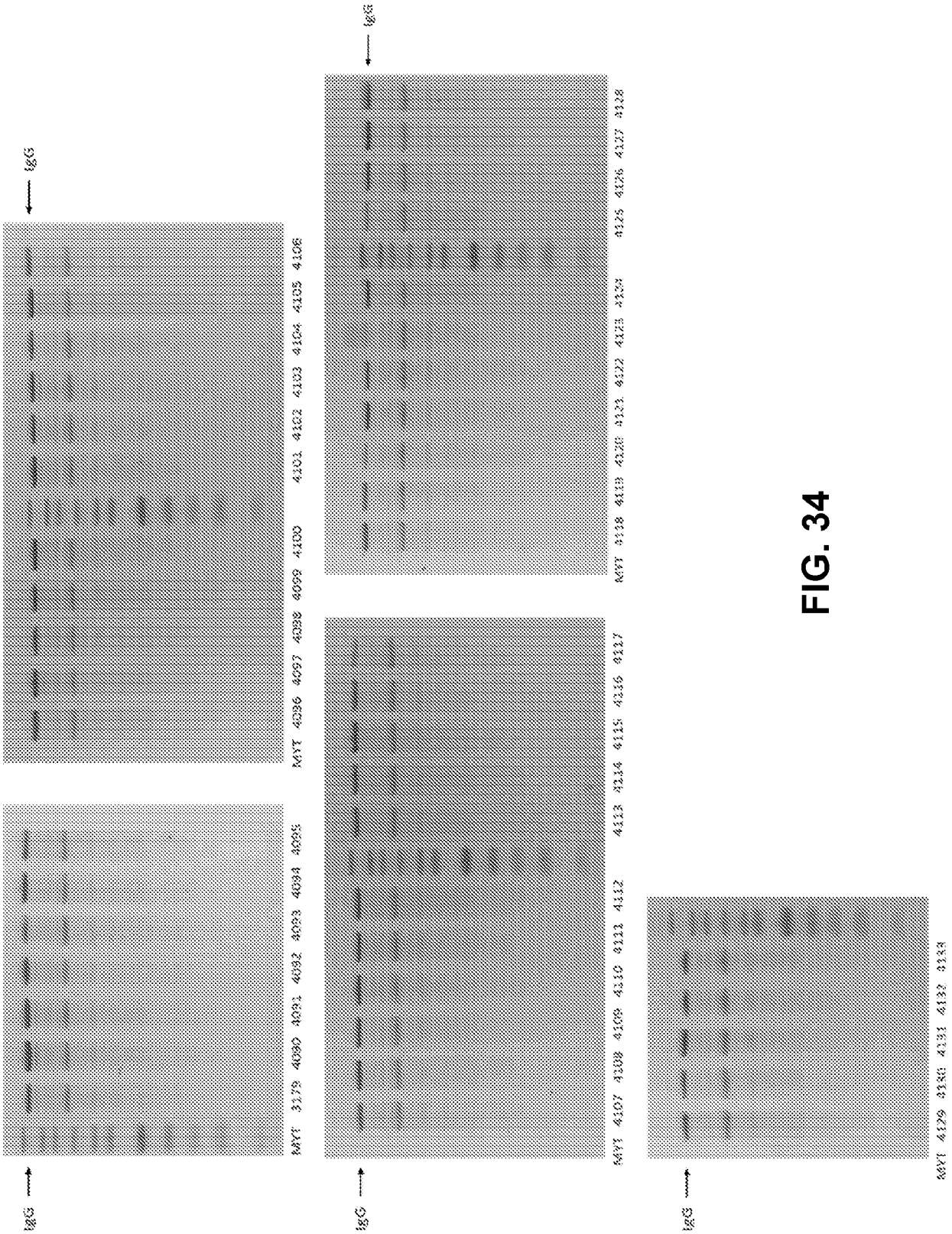


FIG. 34

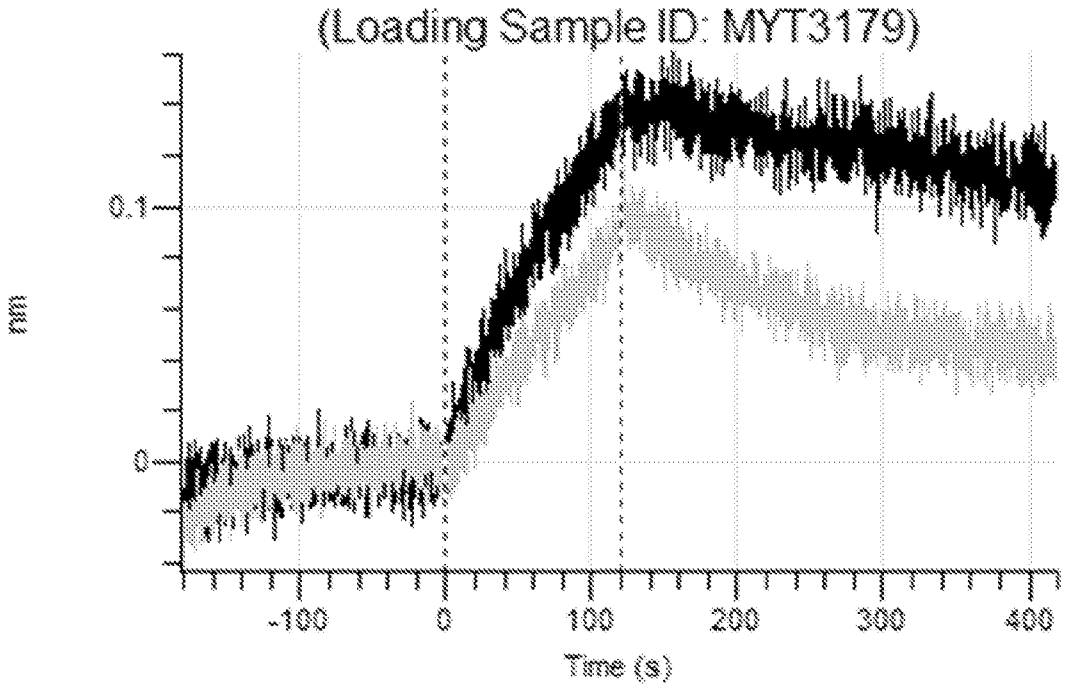


FIG. 35A

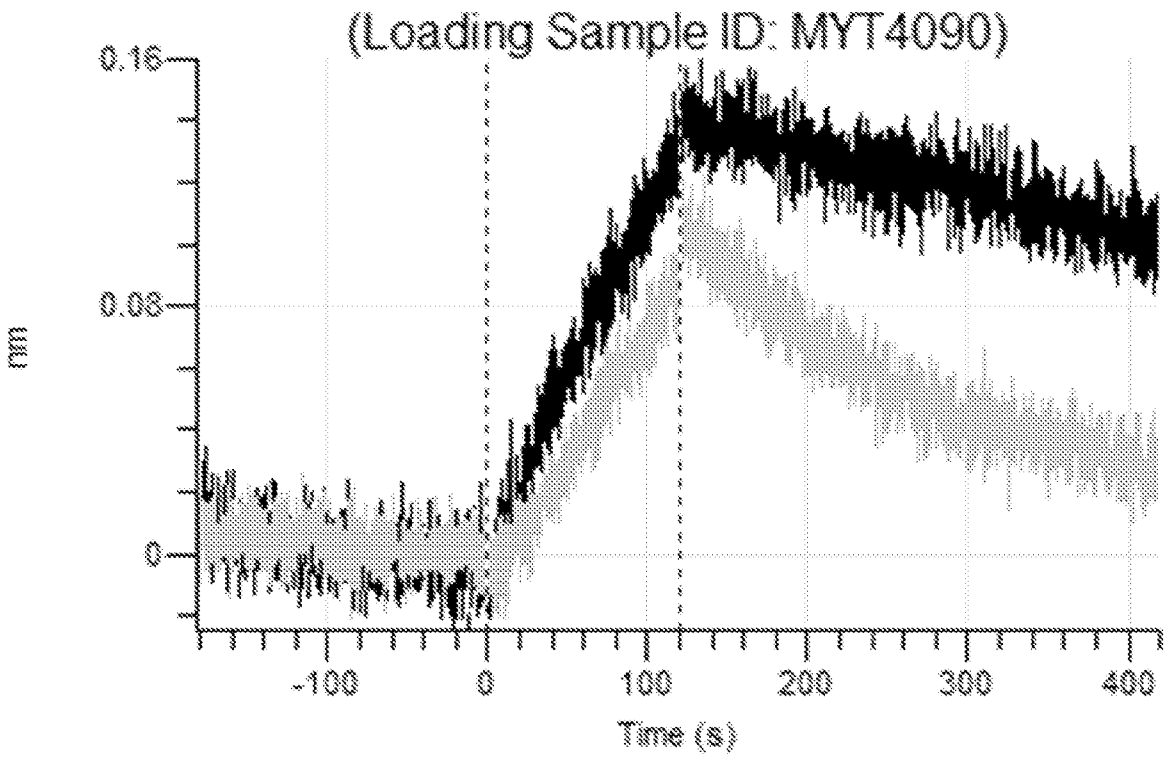

(Loading Sample ID: MYT4090)
0.16
0.08
0
nm
-100
0
100
200
300
400
Time (s)

FIG. 35B

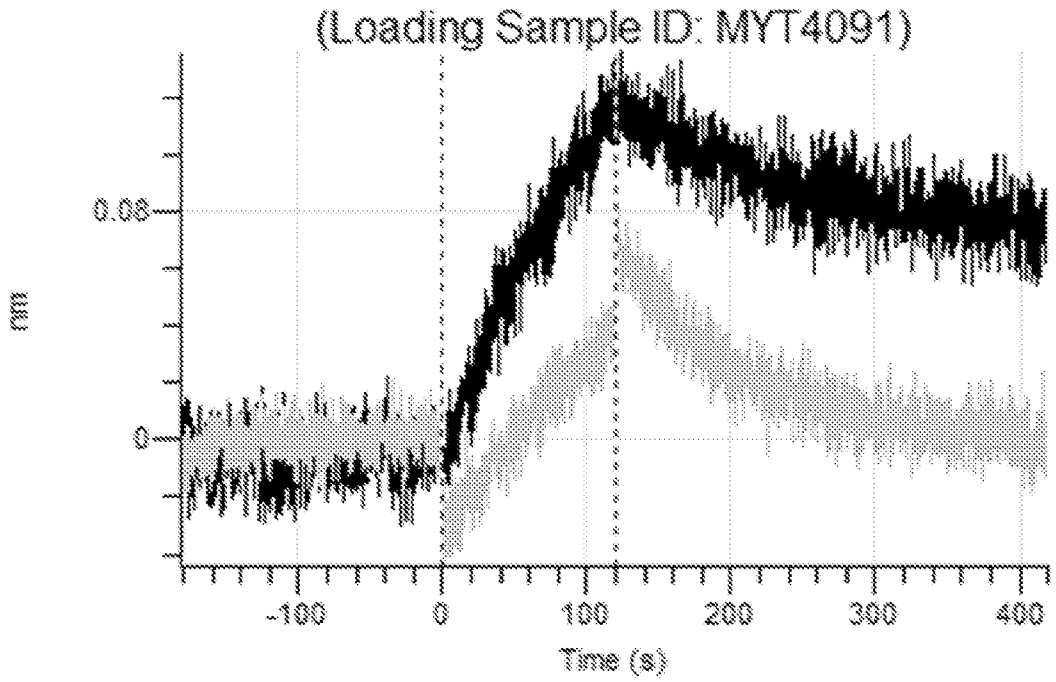


FIG. 35C

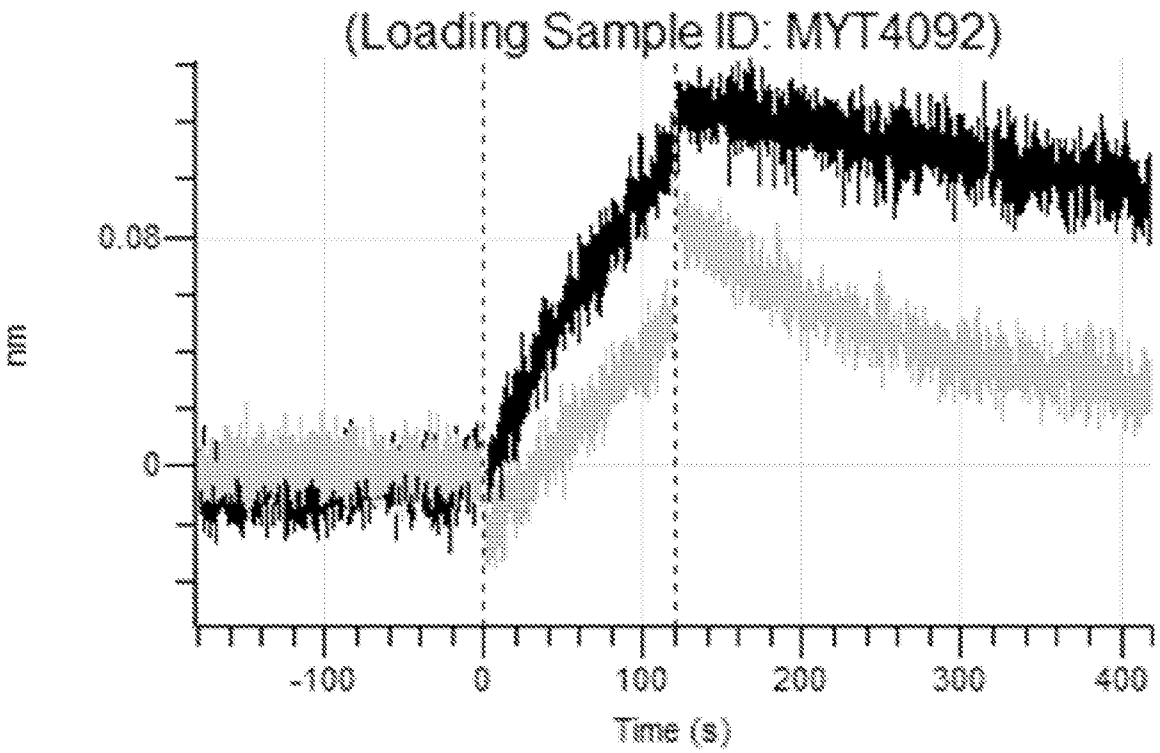


FIG. 35D

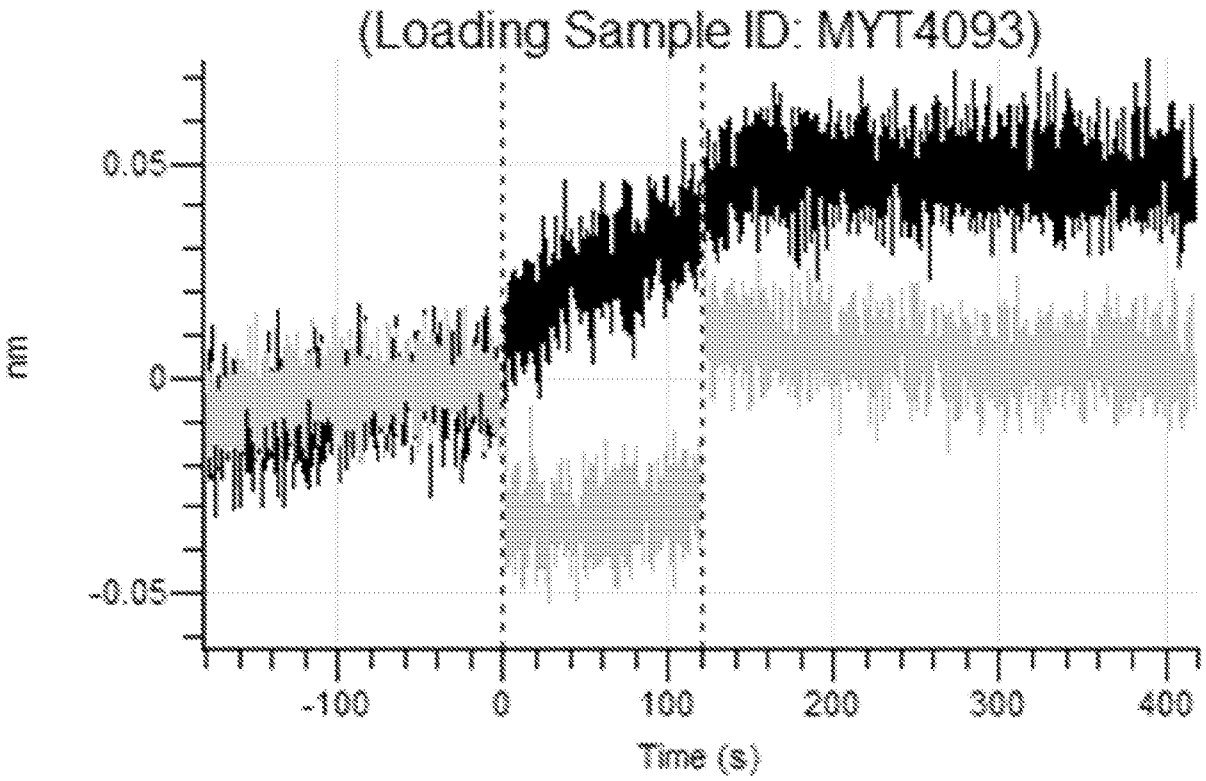

(Loading Sample ID: MYT4093)
0.05
0
-0.05
mm
-100
0
100
200
300
400
Time (s)

FIG. 35E

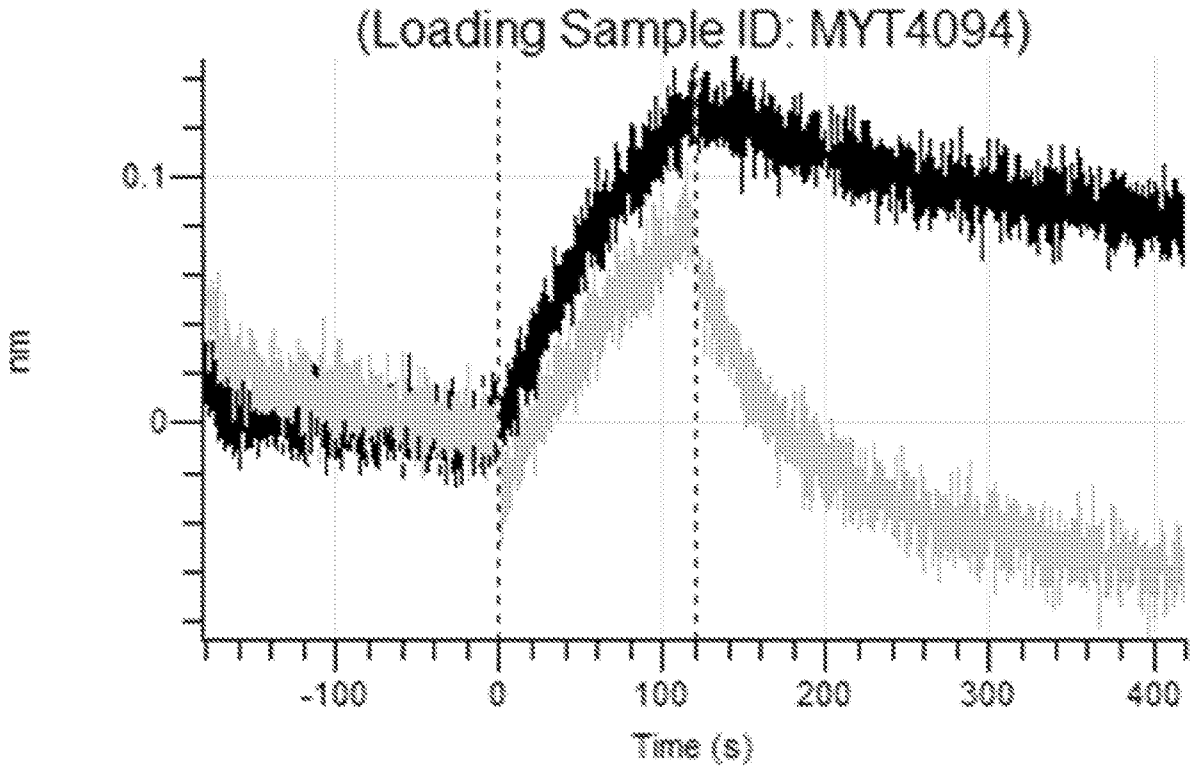


FIG. 35F

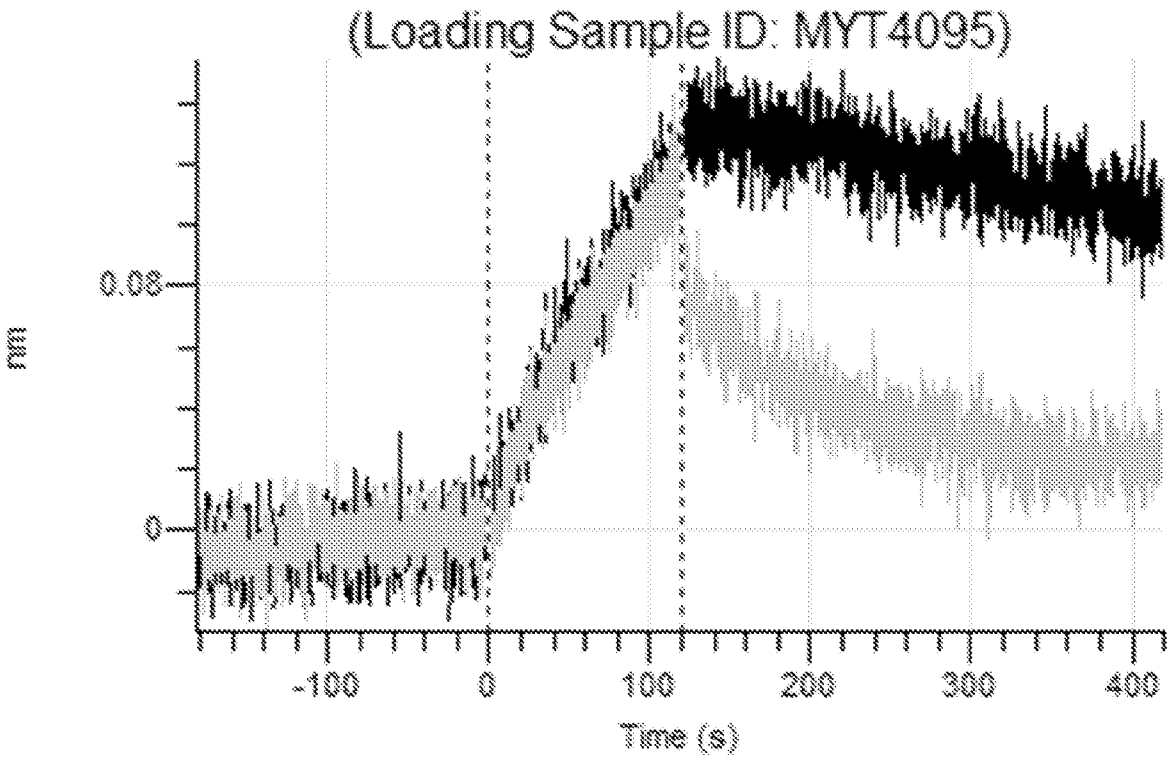


FIG. 35G

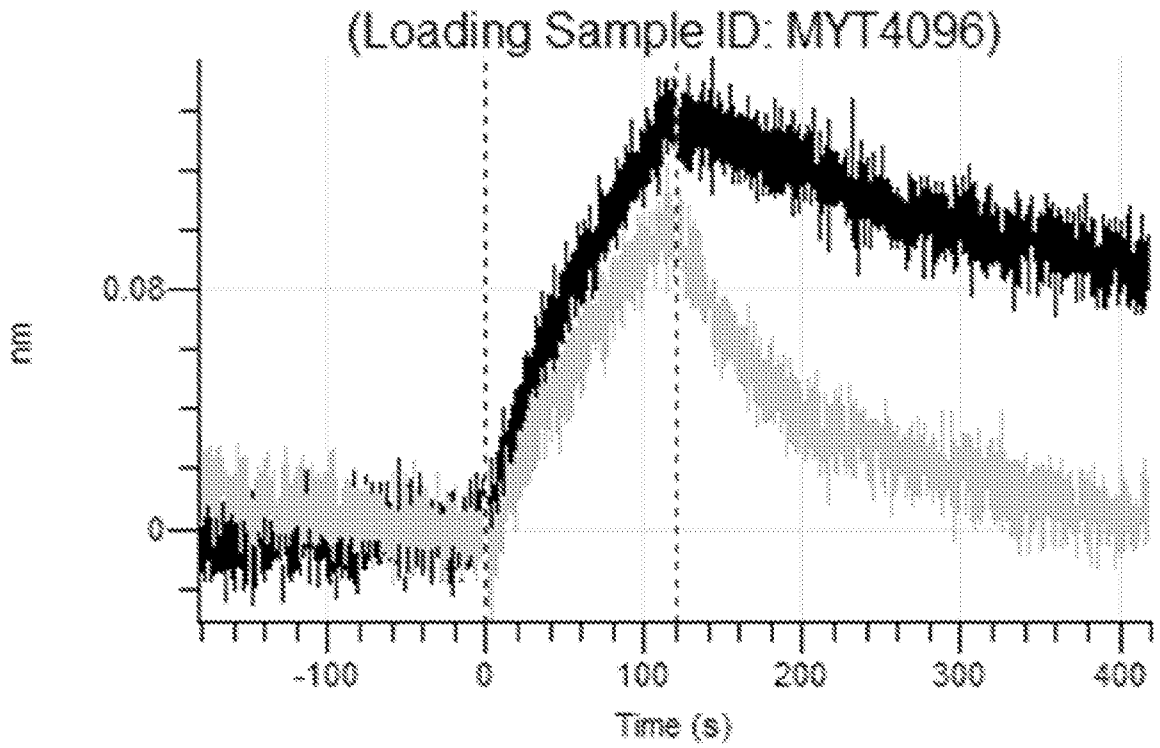


FIG. 35H

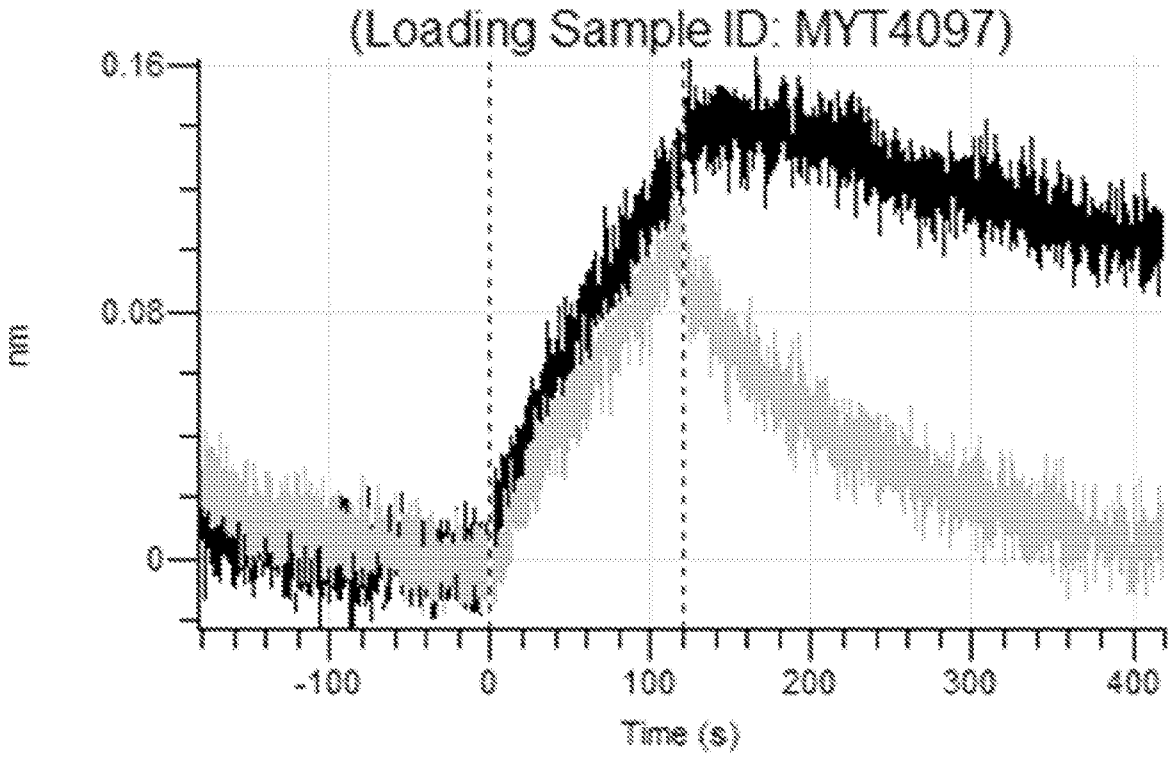

(Loading Sample ID: MYT4097)
0.16
0.08
0
-100
0
100
200
300
400
Time (s)

FIG. 35I

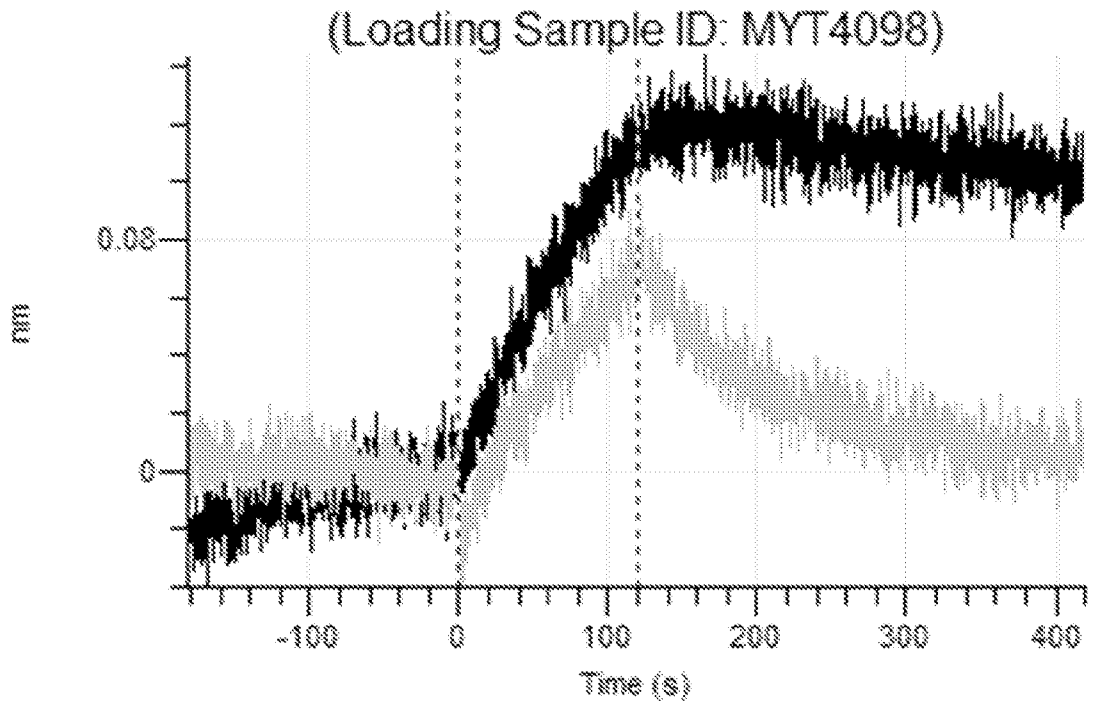


FIG. 35J

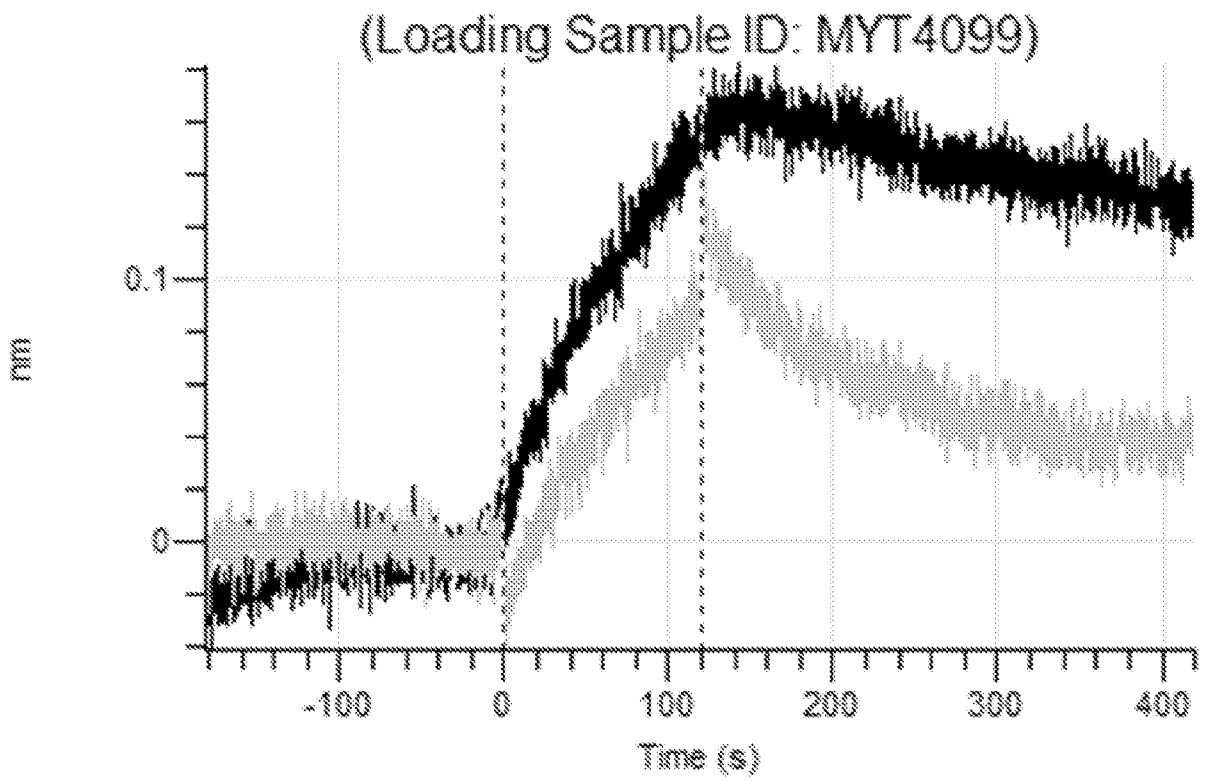


FIG. 35K

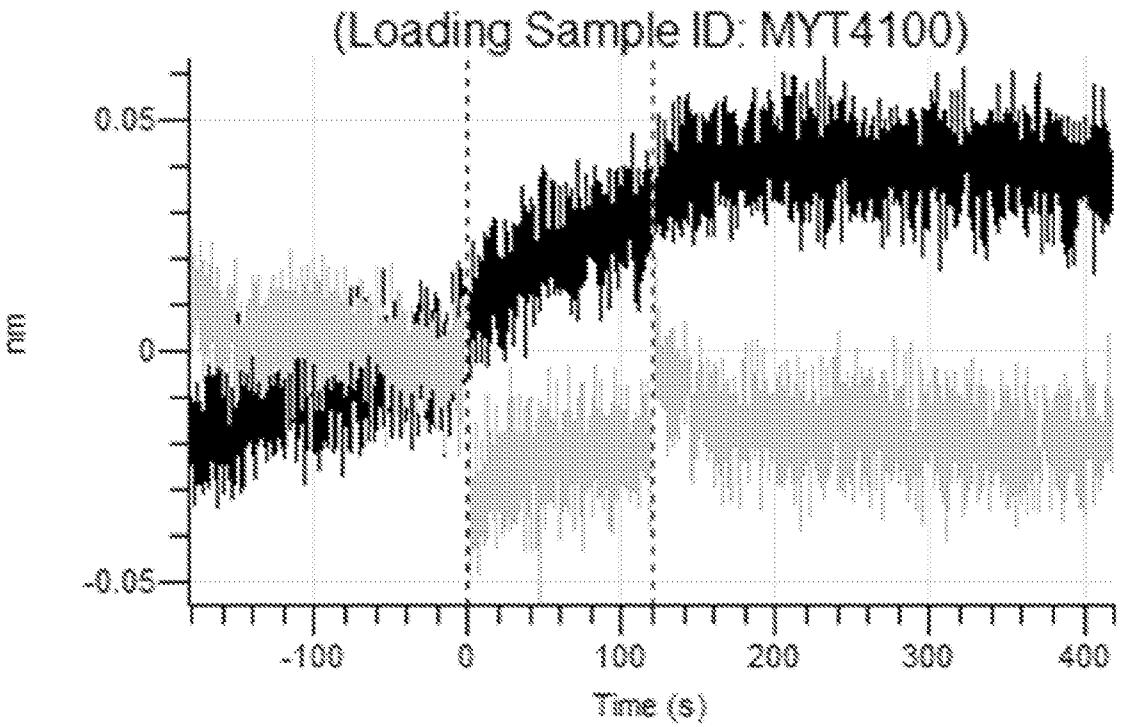

(Loading Sample ID: MYT4100)
0.05
0
-0.05
nm
-100
0
100
200
300
400
Time (s)

FIG. 35L

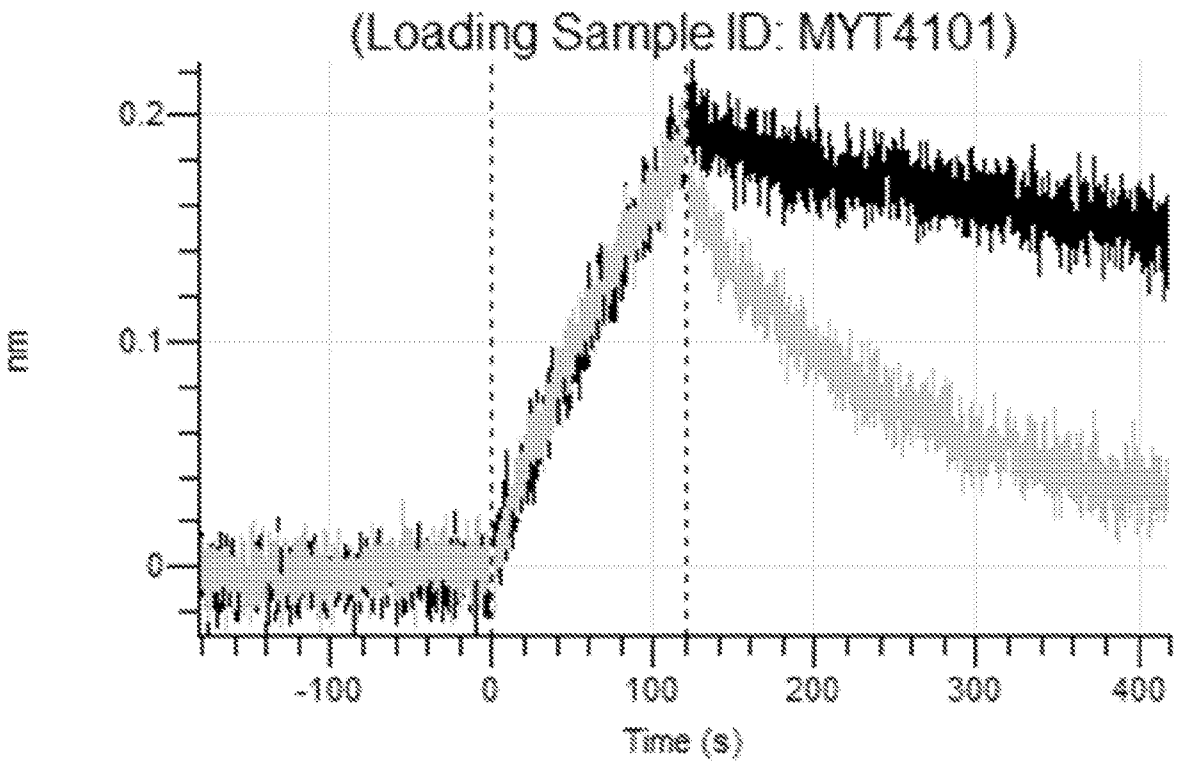

(Loading Sample ID: MYT4101)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)

FIG. 35M

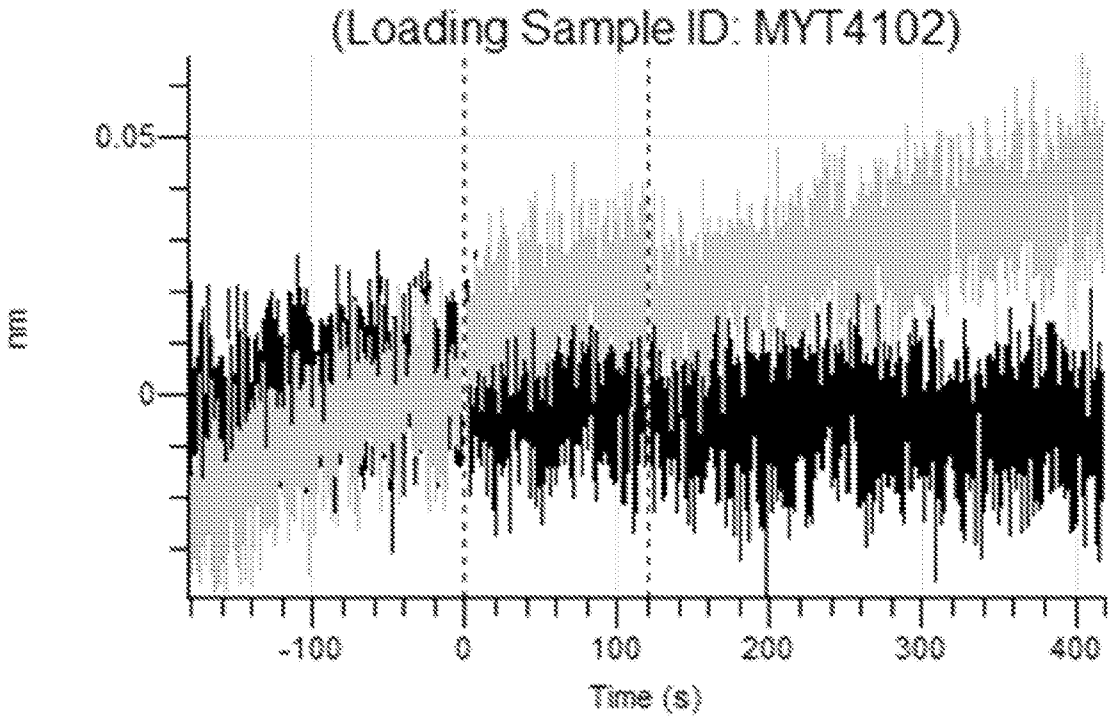


FIG. 35N

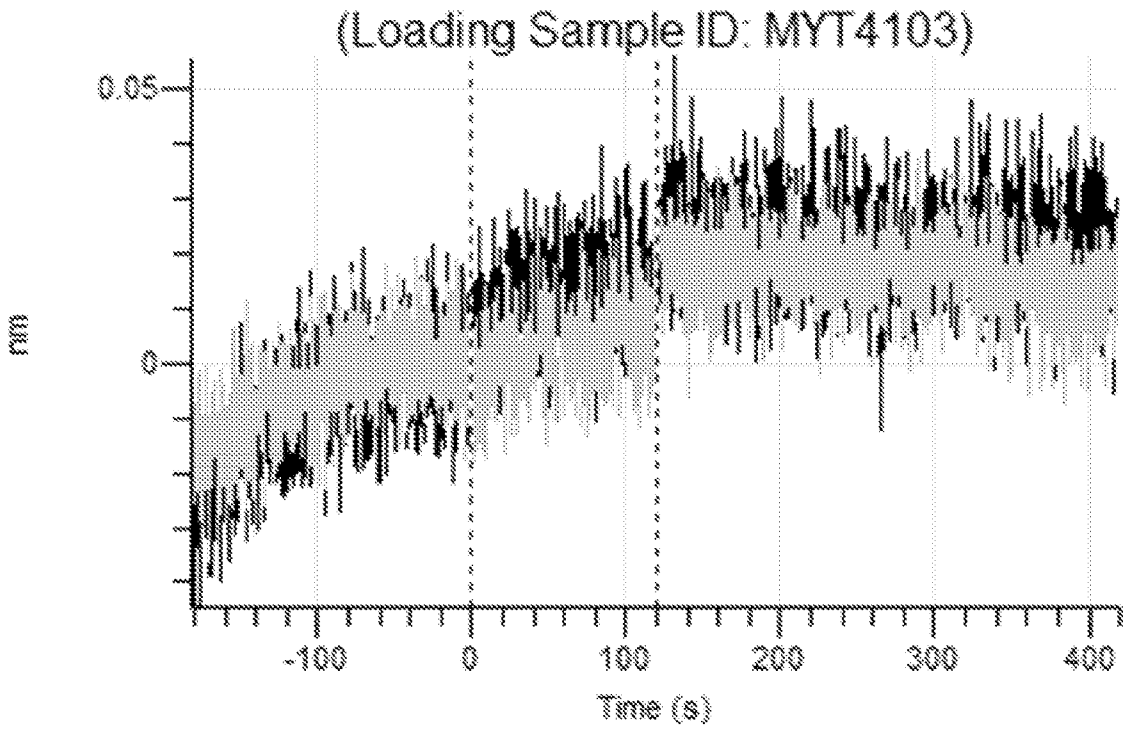


FIG. 35O

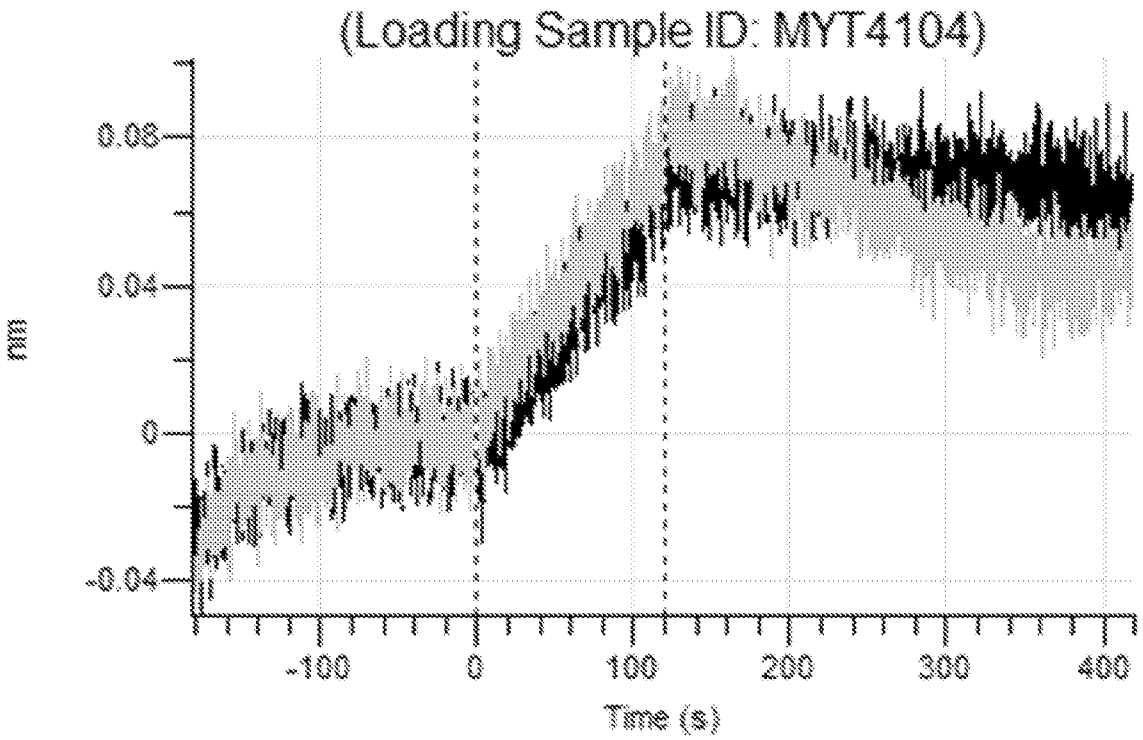

(Loading Sample ID: MYT4104)
0.08
0.04
0
-0.04
nm
-100
0
100
200
300
400
Time (s)

FIG. 35P

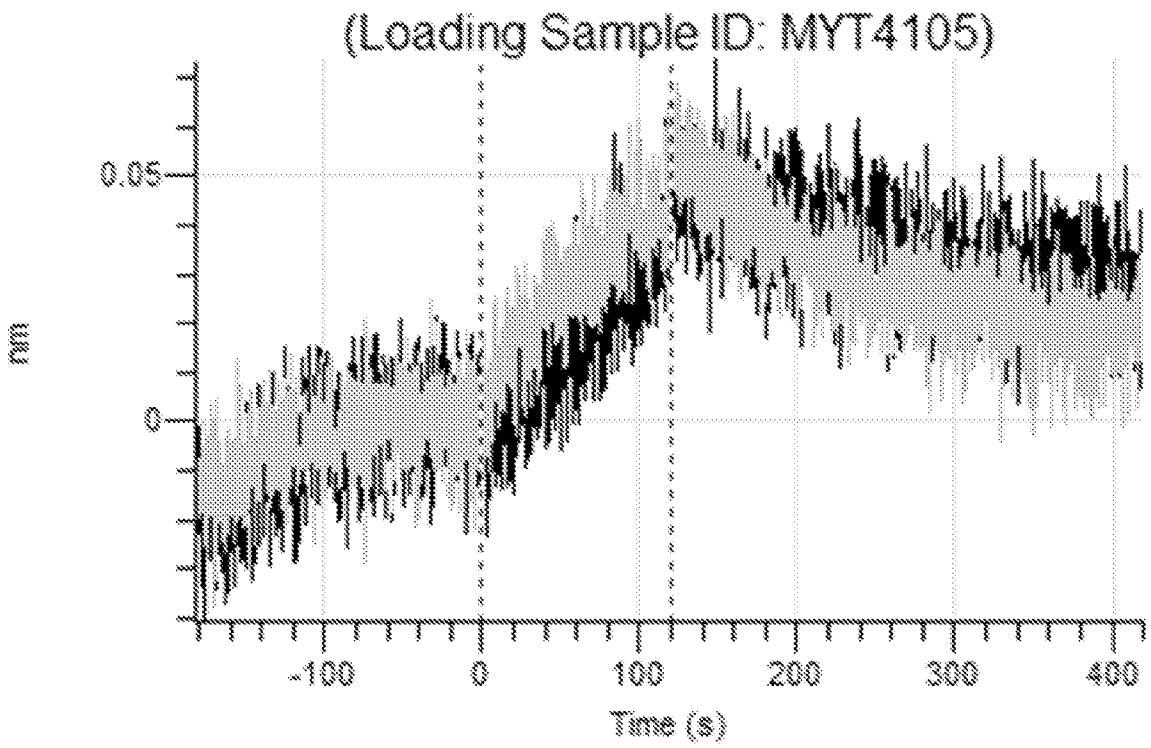


FIG. 35Q

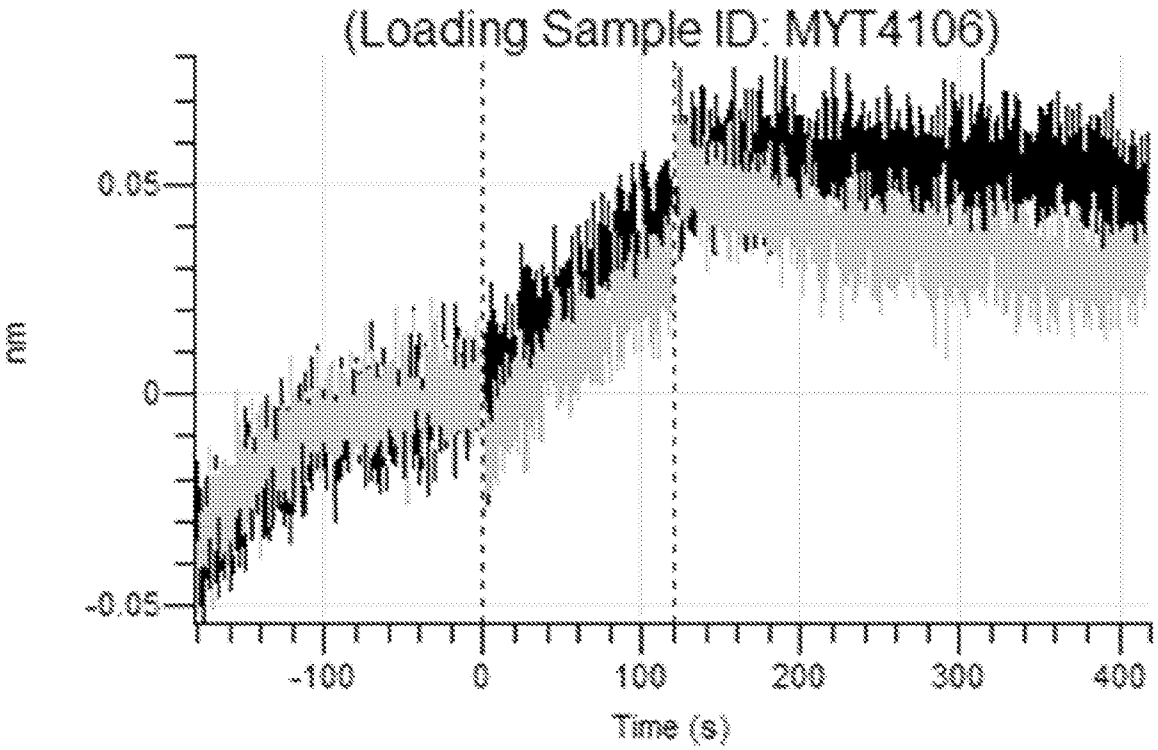

(Loading Sample ID: MYT4106)
nm
0.05
0
-0.05
-100
0
100
200
300
400
Time (s)

FIG. 35R

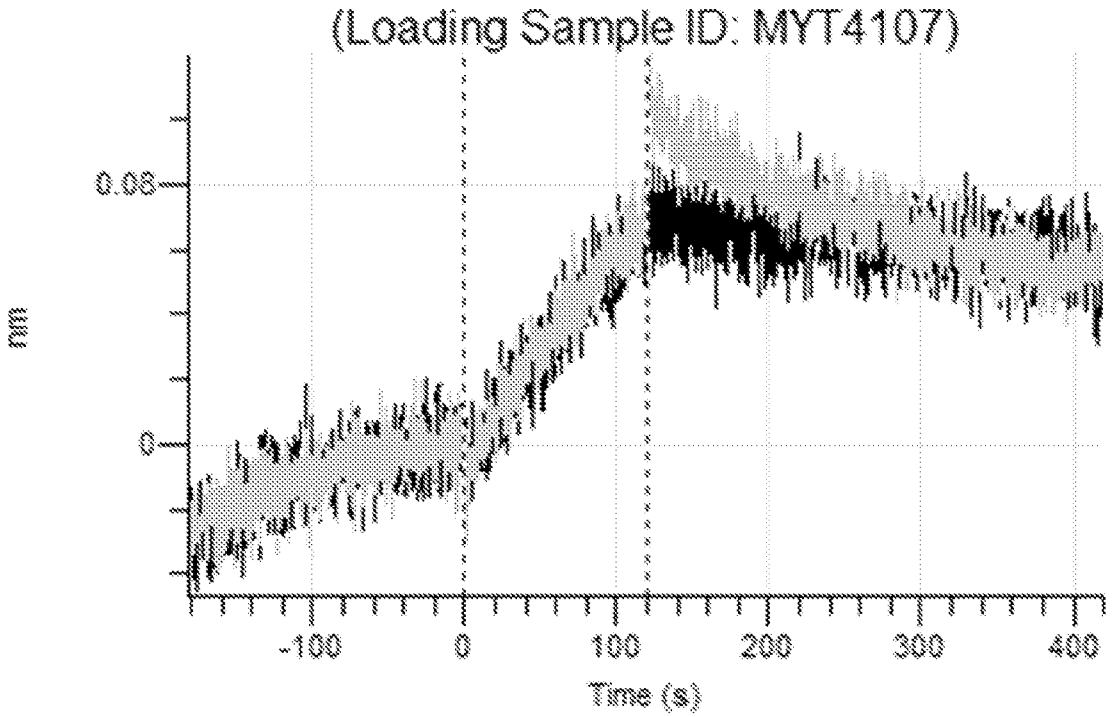


FIG. 35S

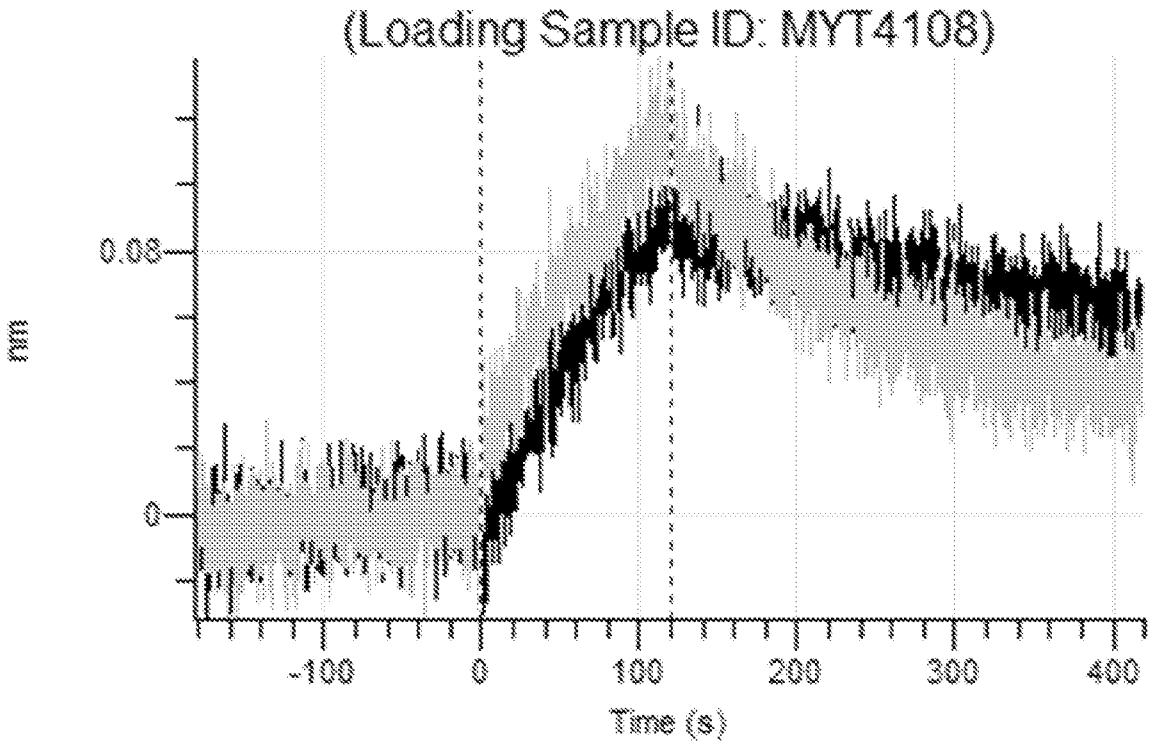


FIG. 35T

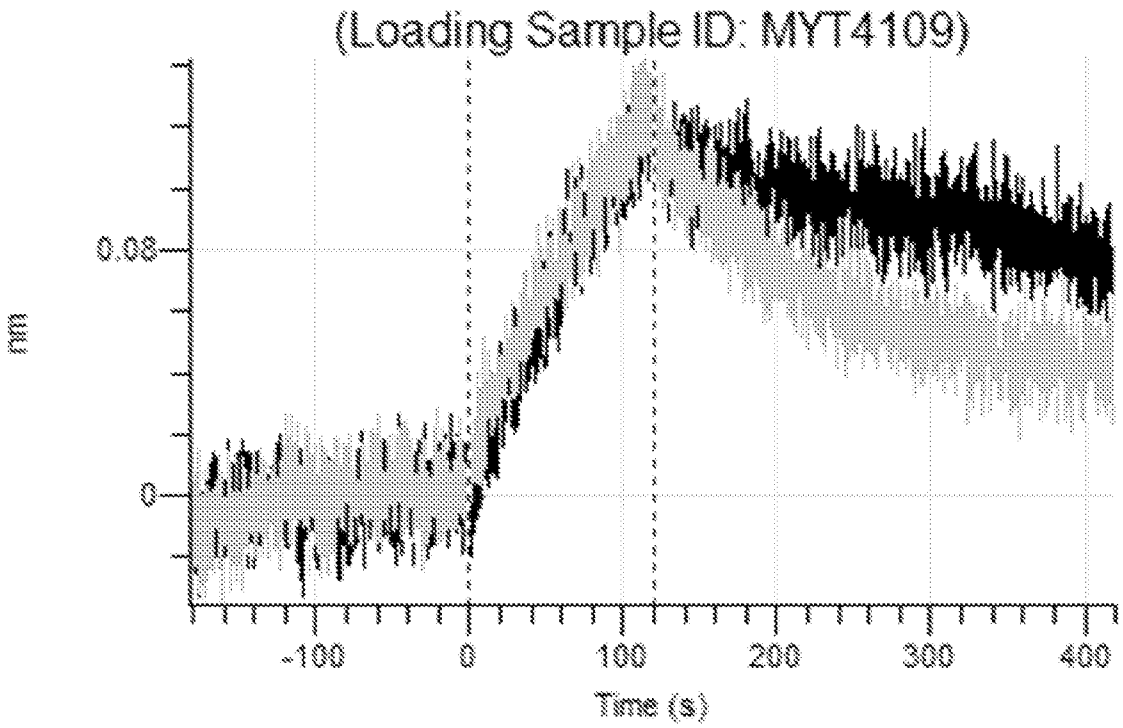


FIG. 35U

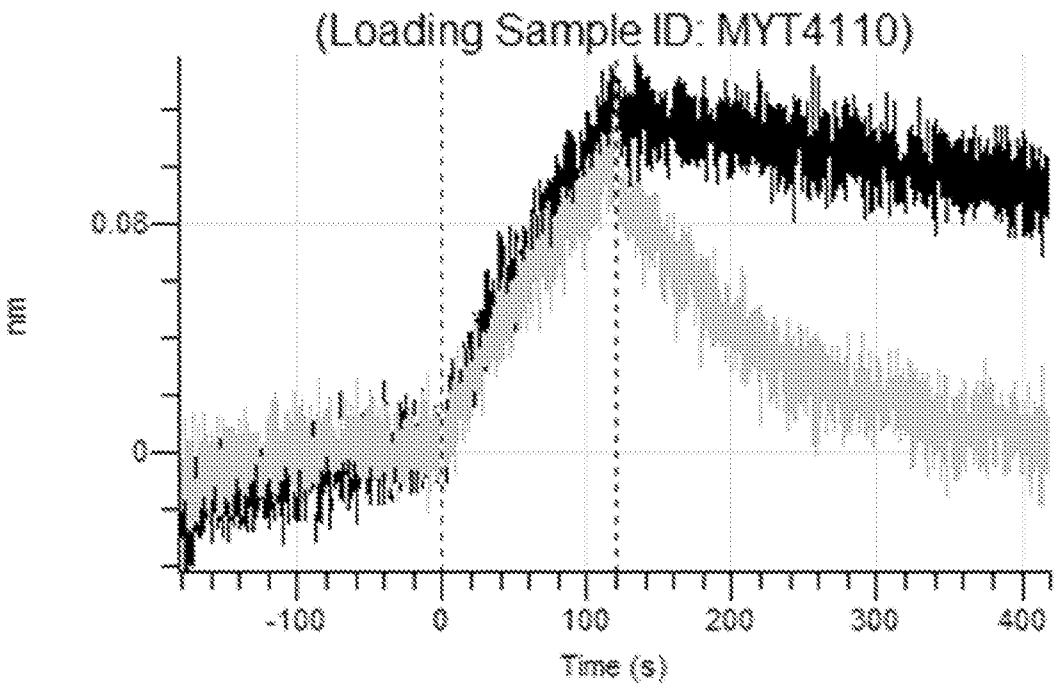


FIG. 35V

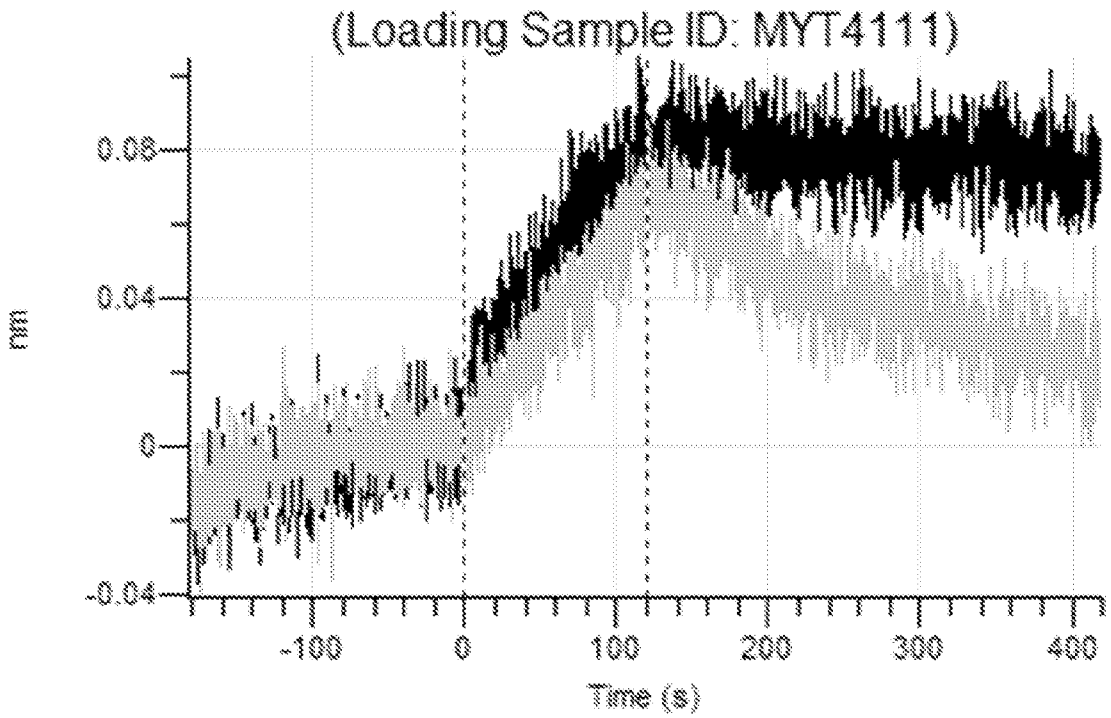

(Loading Sample ID: MYT4111)
0.08
0.04
0
-0.04
nm
-100
0
100
200
300
400
Time (s)

FIG. 35W

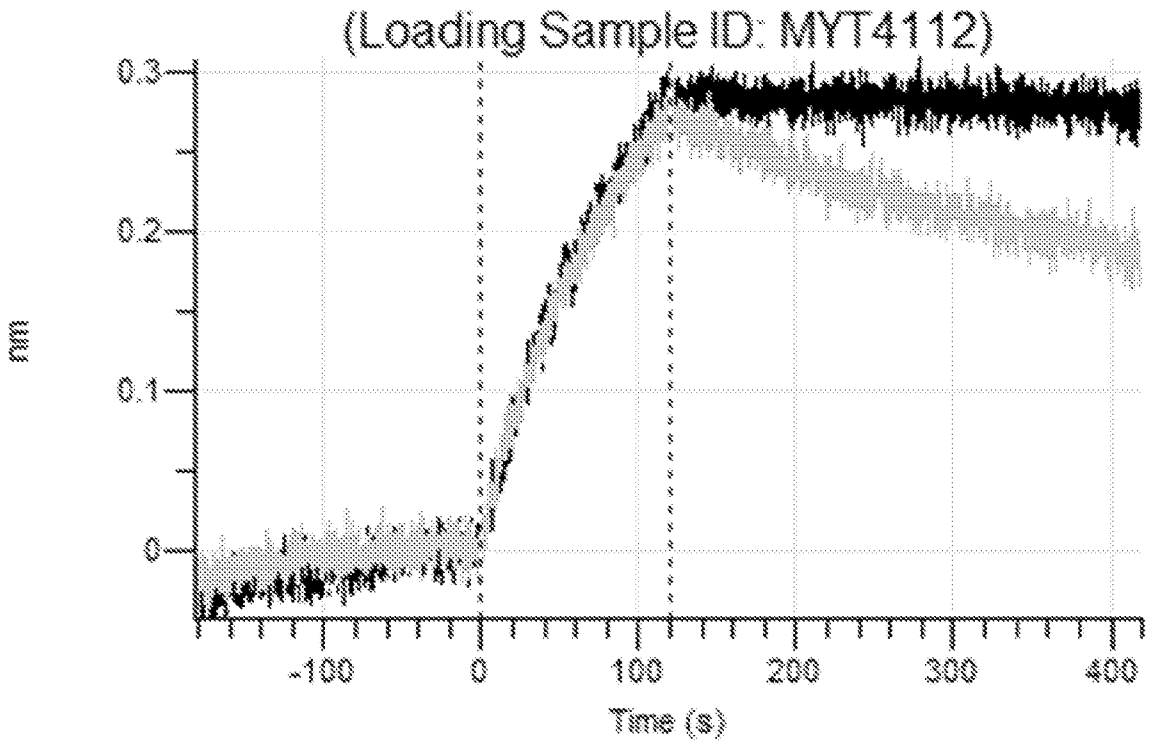

(Loading Sample ID: MYT4112)
nm
0.3
0.2
0.1
0
-100
0
100
200
300
400
Time (s)

FIG. 35X

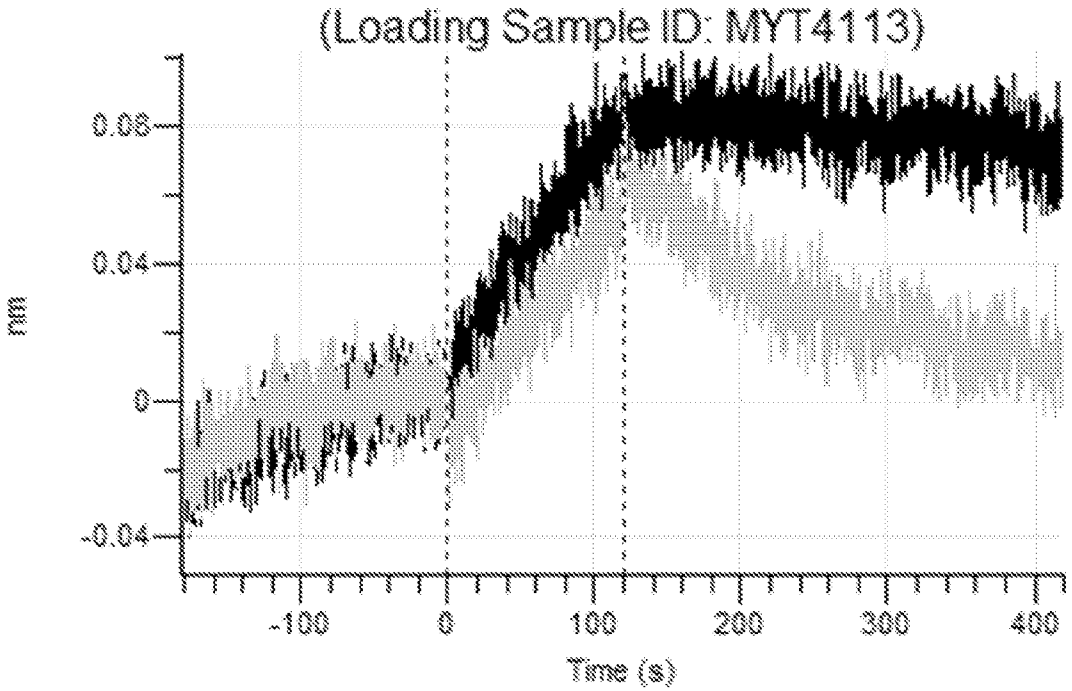

(Loading Sample ID: MYT4113)
0.08
0.04
0
-0.04
nm
-100
0
100
200
300
400
Time (s)

FIG. 35Y

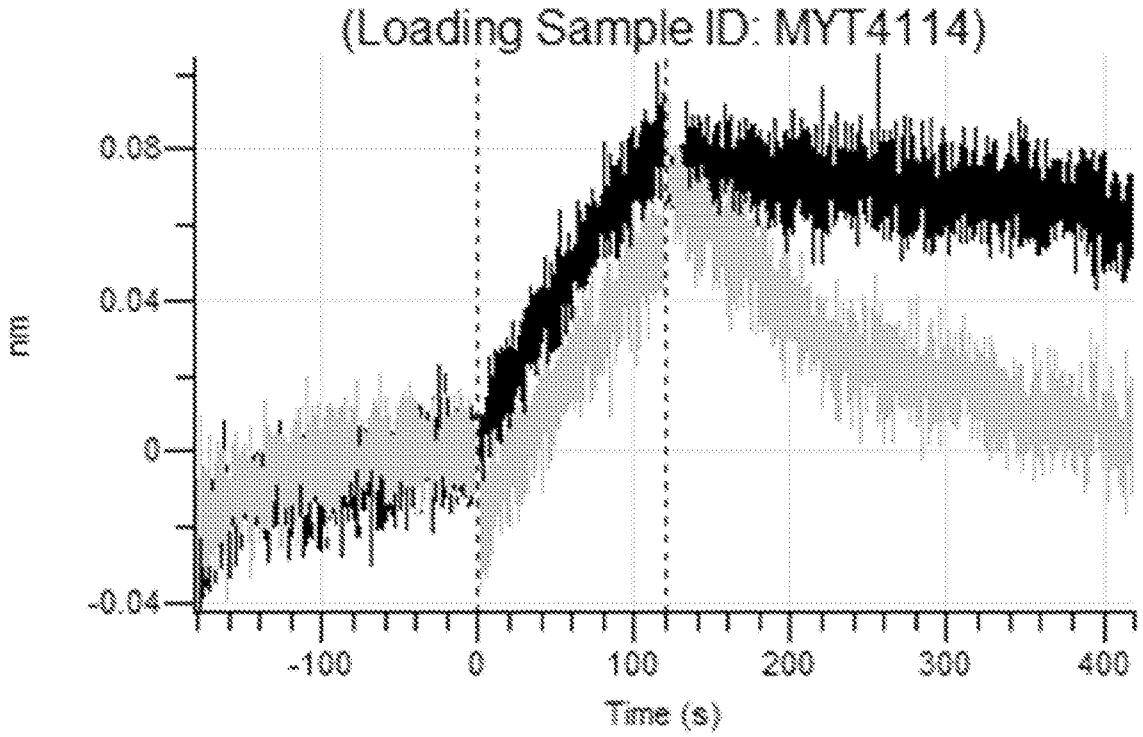

(Loading Sample ID: MYT4114)
nm
0.08
0.04
0
-0.04
-100
0
100
200
300
400
Time (s)

FIG. 35Z

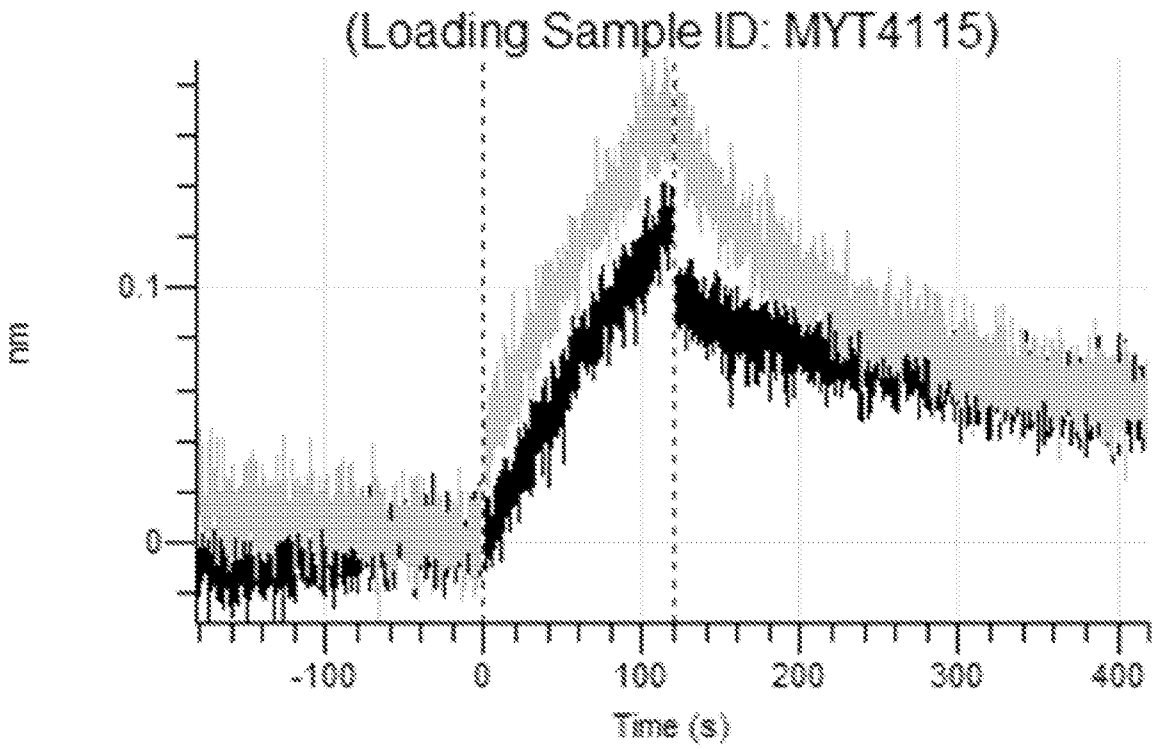


FIG. 35AA

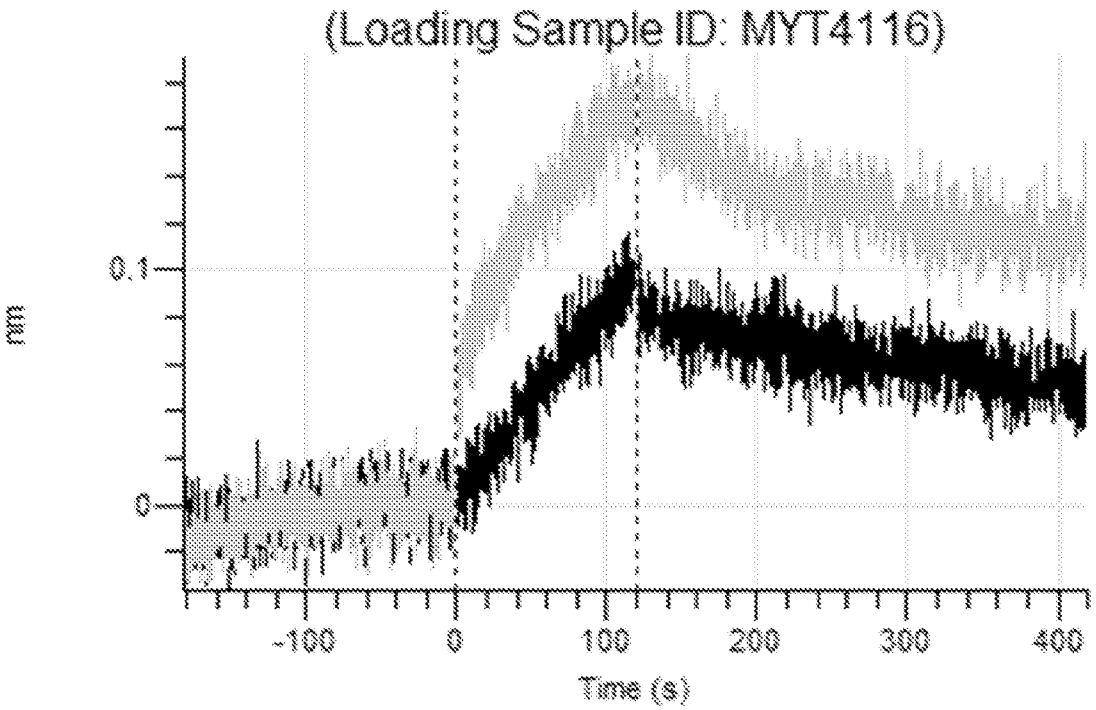


FIG. 35AB

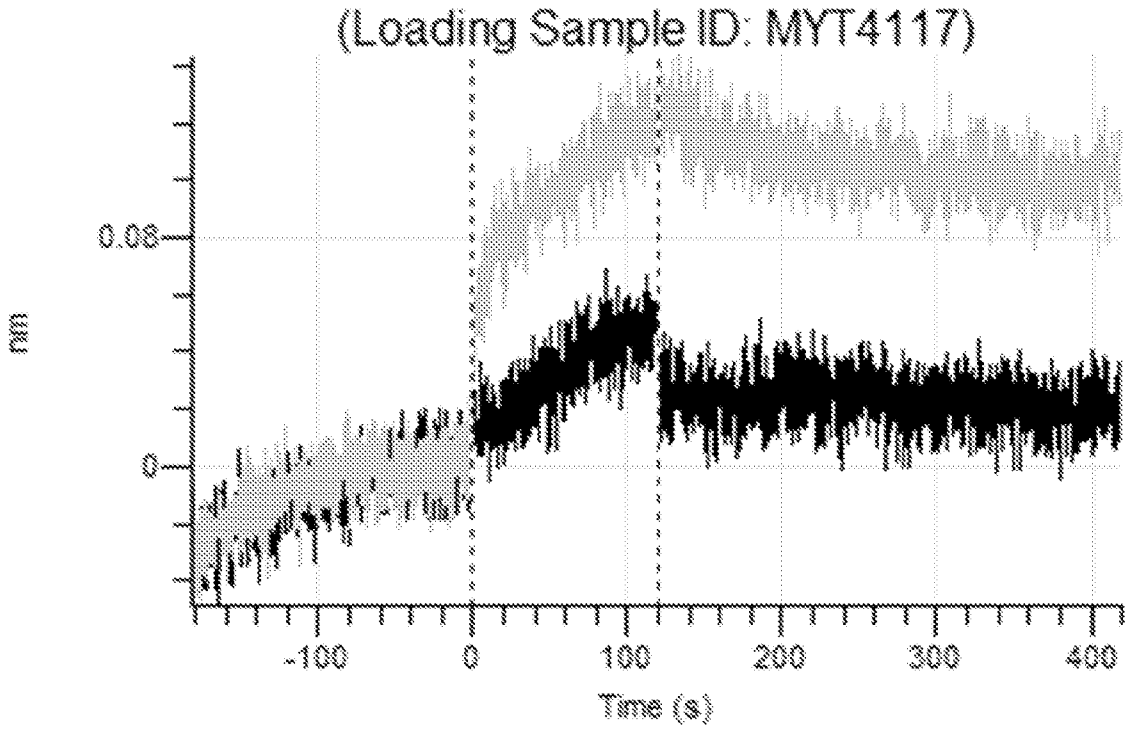


FIG. 35AC

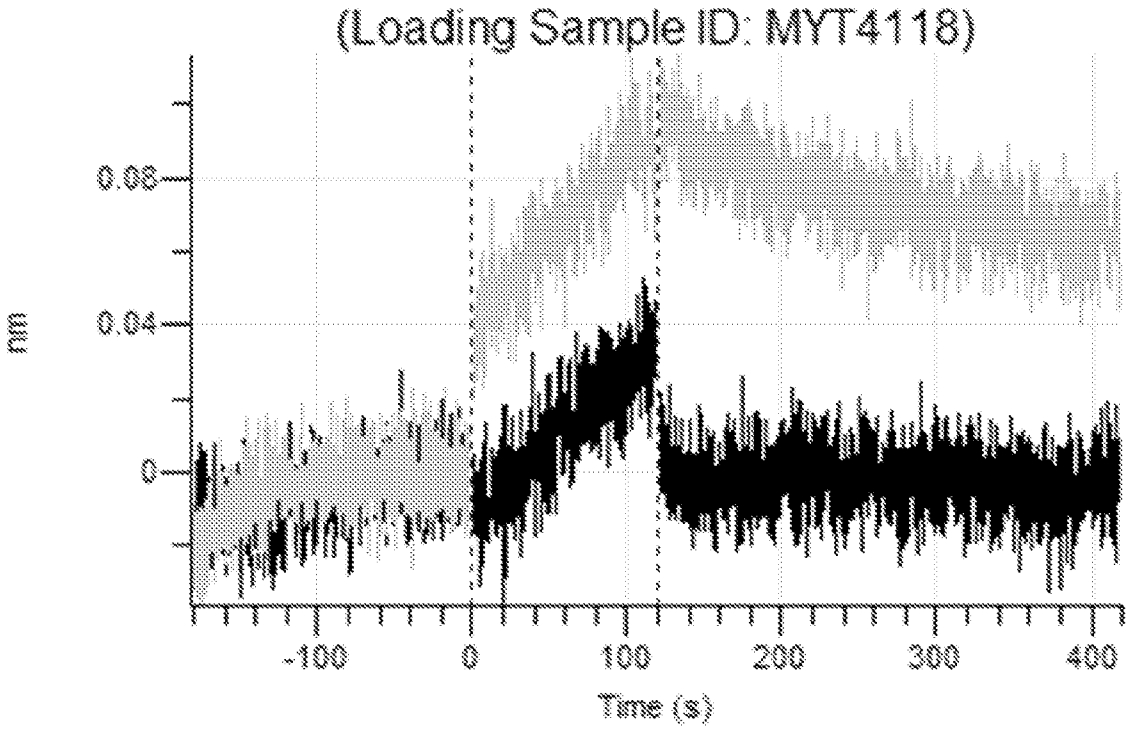

(Loading Sample ID: MYT4118)
0.08
0.04
0
nm
-100
0
100
200
300
400
Time (s)

FIG. 35AD

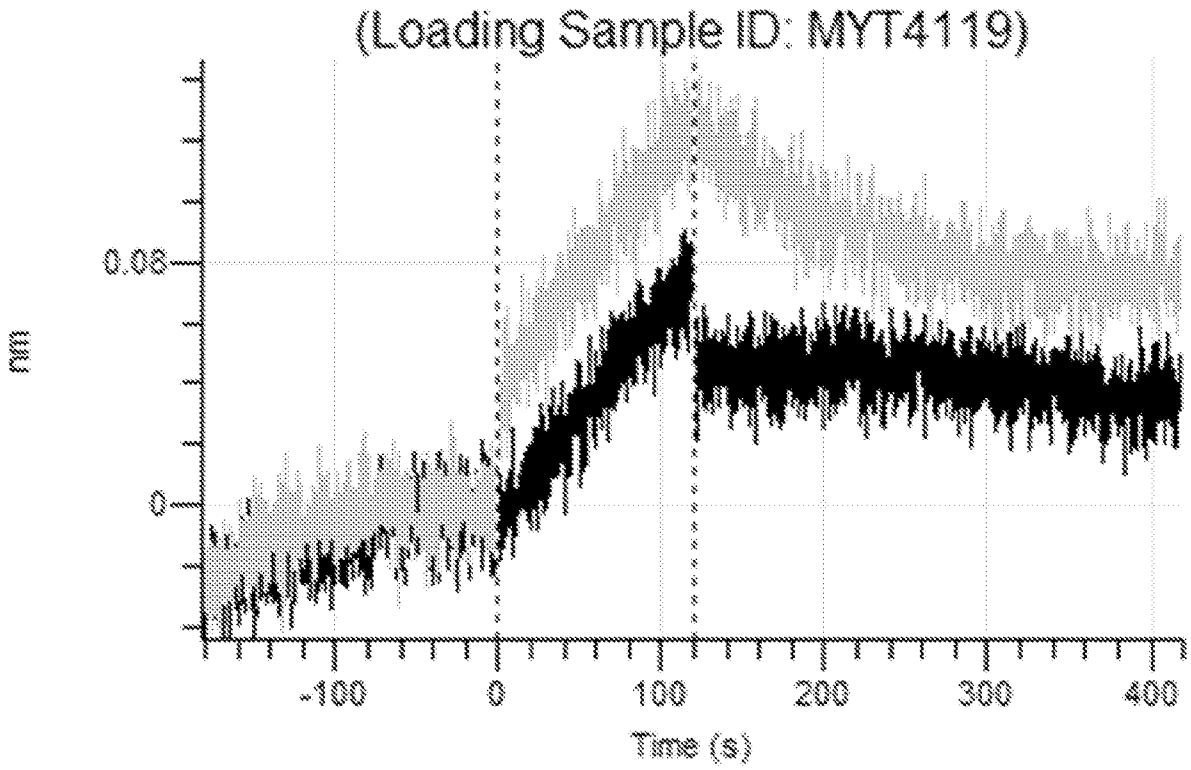


FIG. 35AE

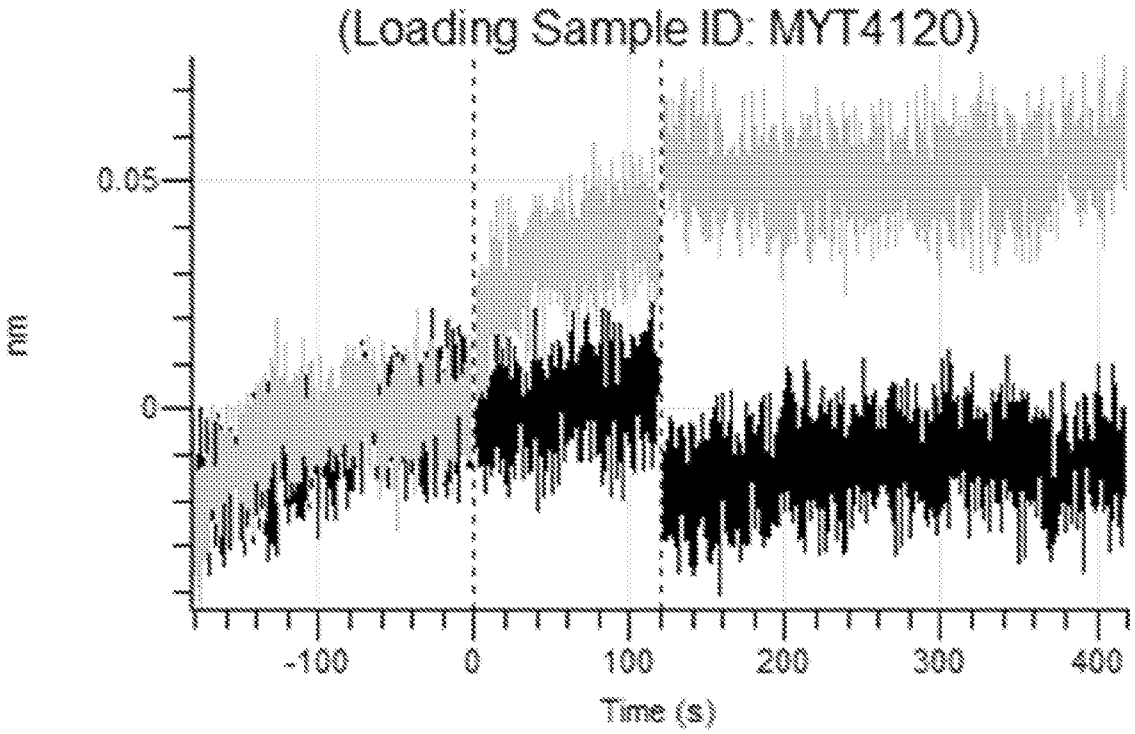


FIG. 35AF

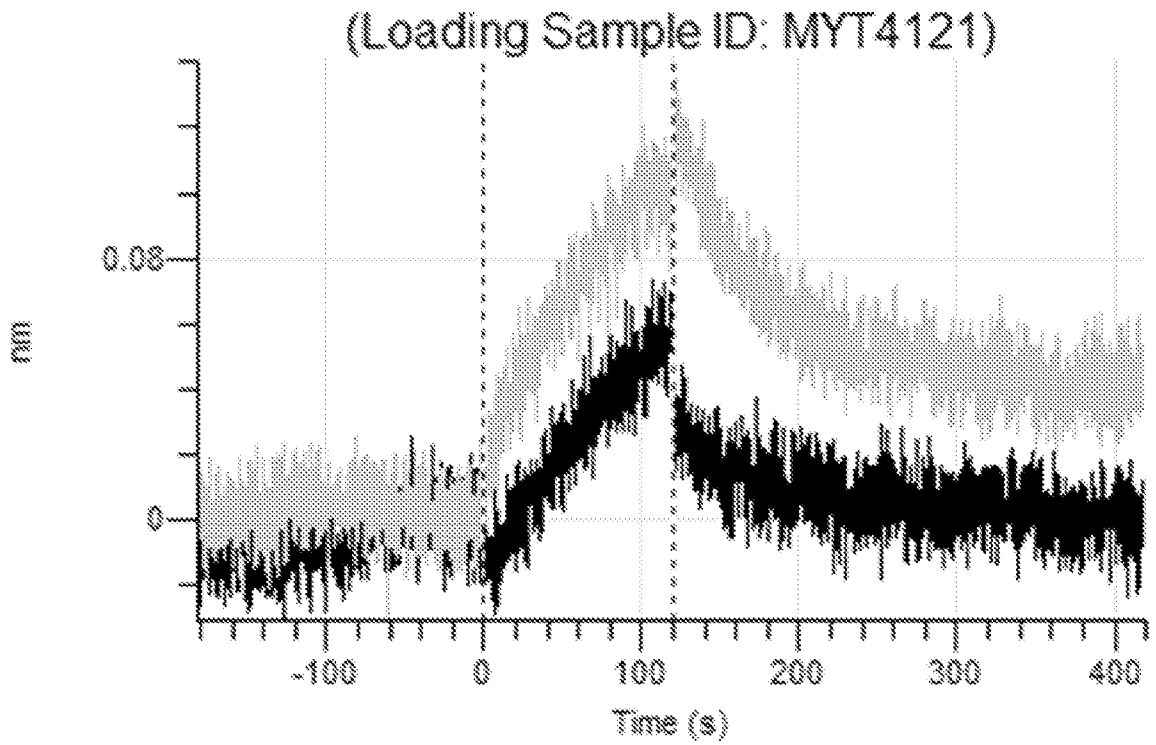


FIG. 35AG

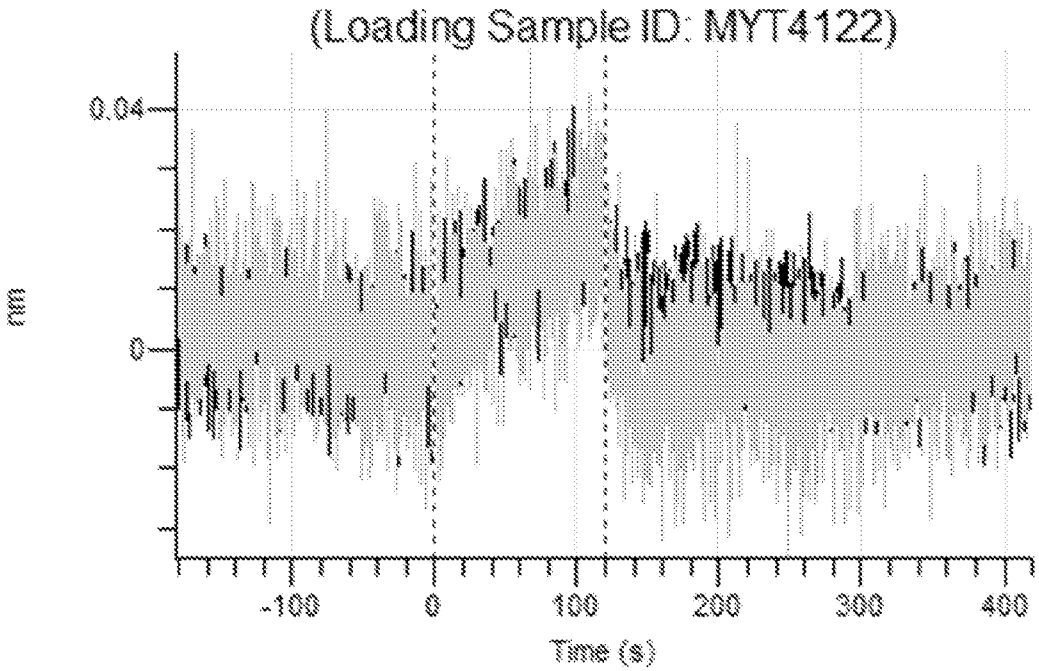


FIG. 35AH

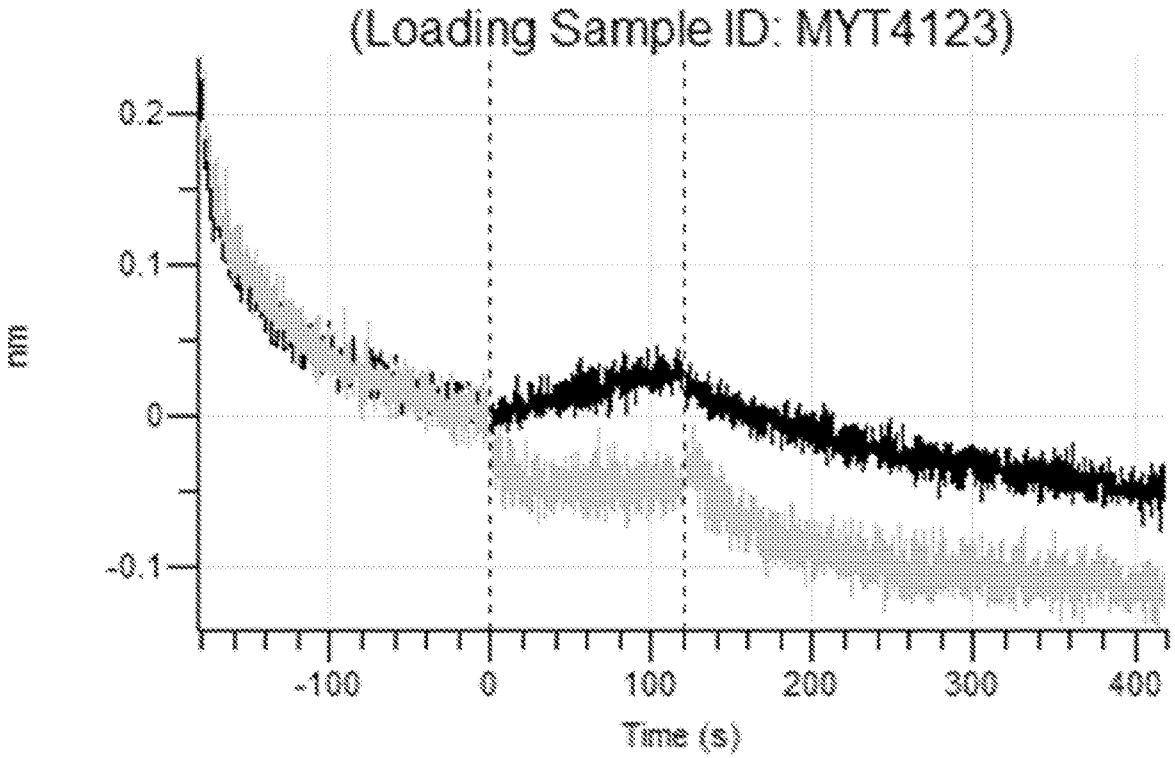

(Loading Sample ID: MYT4123)
0.2
0.1
0
-0.1
nm
-100
0
100
200
300
400
Time (s)

FIG. 35AI

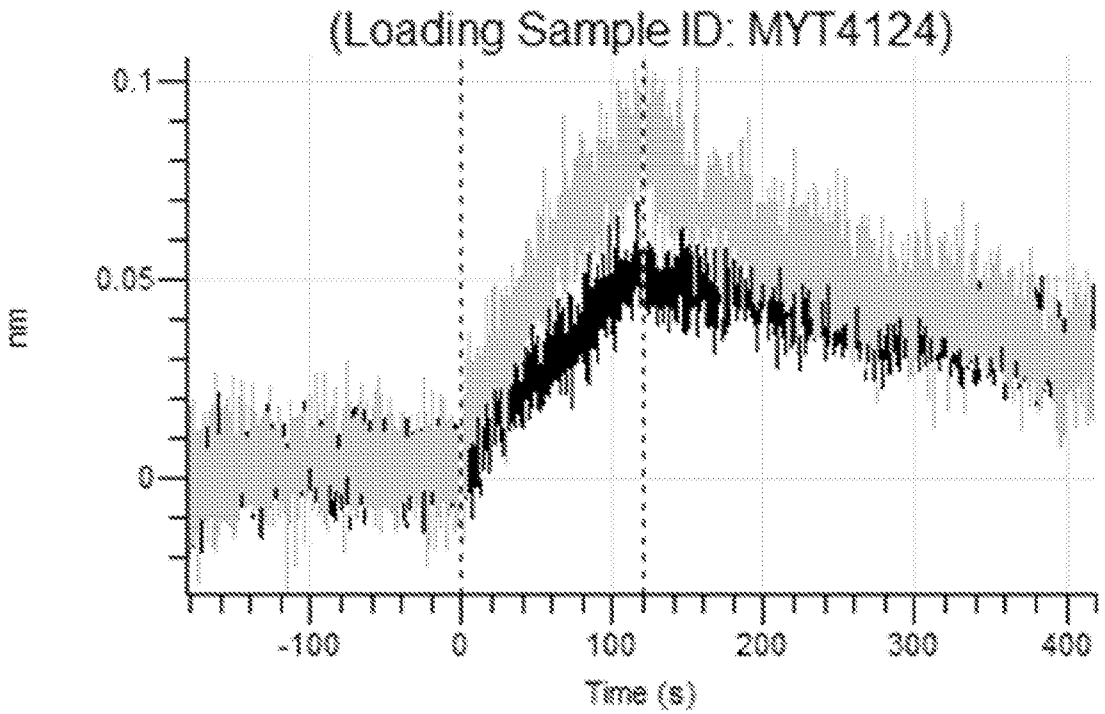


FIG. 35AJ

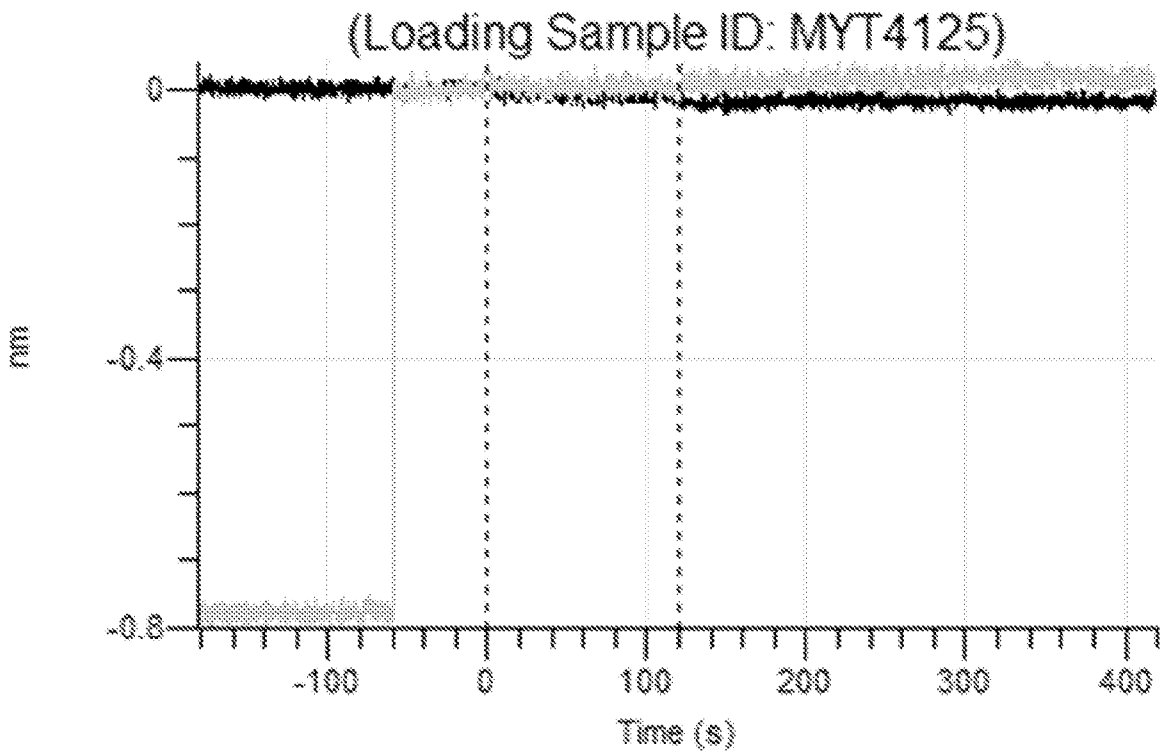

(Loading Sample ID: MYT4125)
0
-0.4
-0.8
nm
-100
0
100
200
300
400
Time (s)

FIG. 35AK

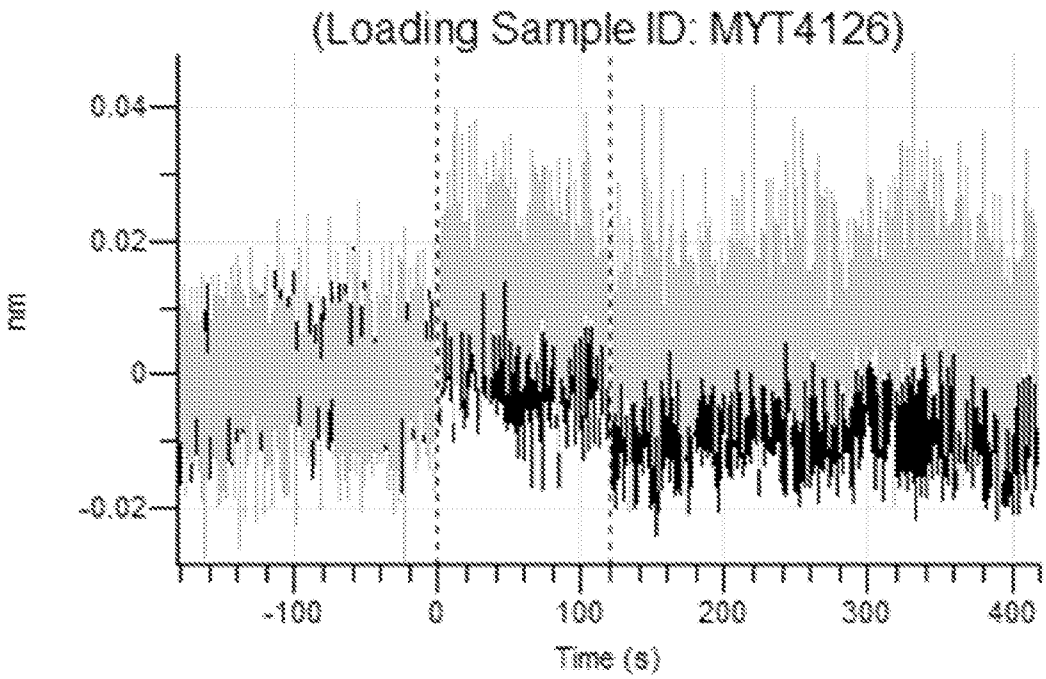

(Loading Sample ID: MYT4126)
0.04
0.02
0
-0.02
nm
-100
0
100
200
300
400
Time (s)

FIG. 35AL

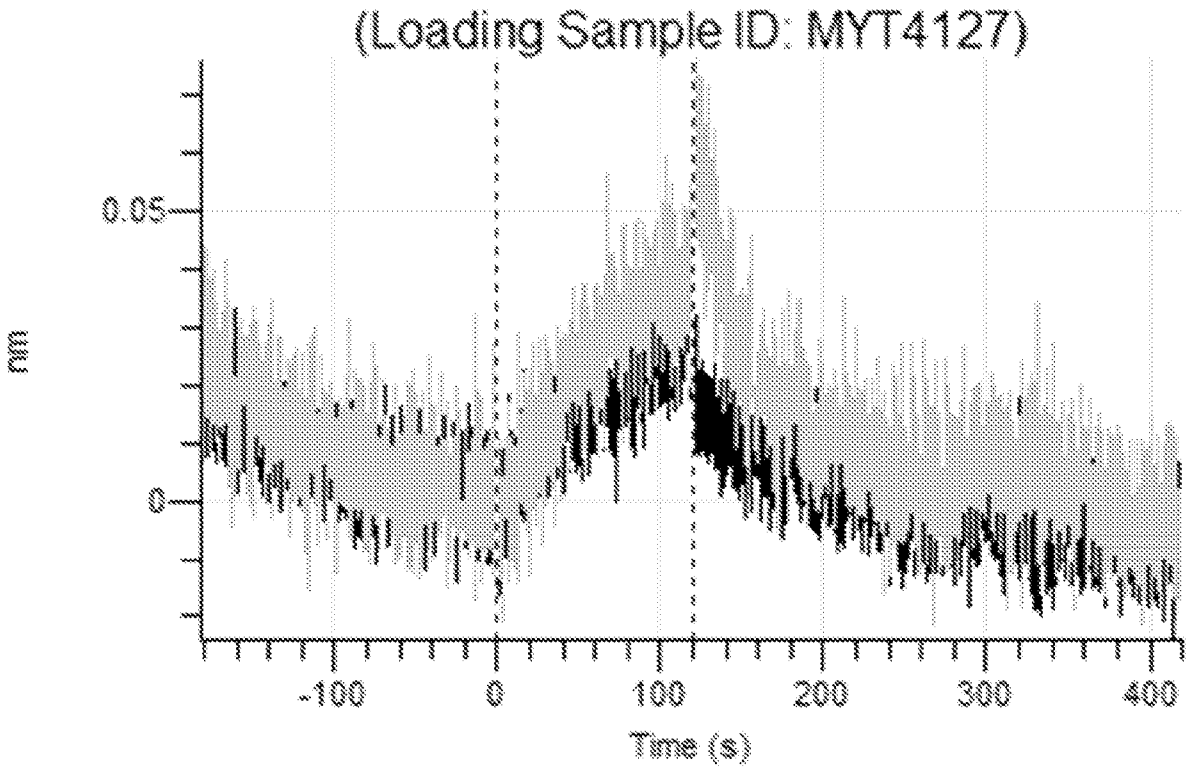


FIG. 35AM

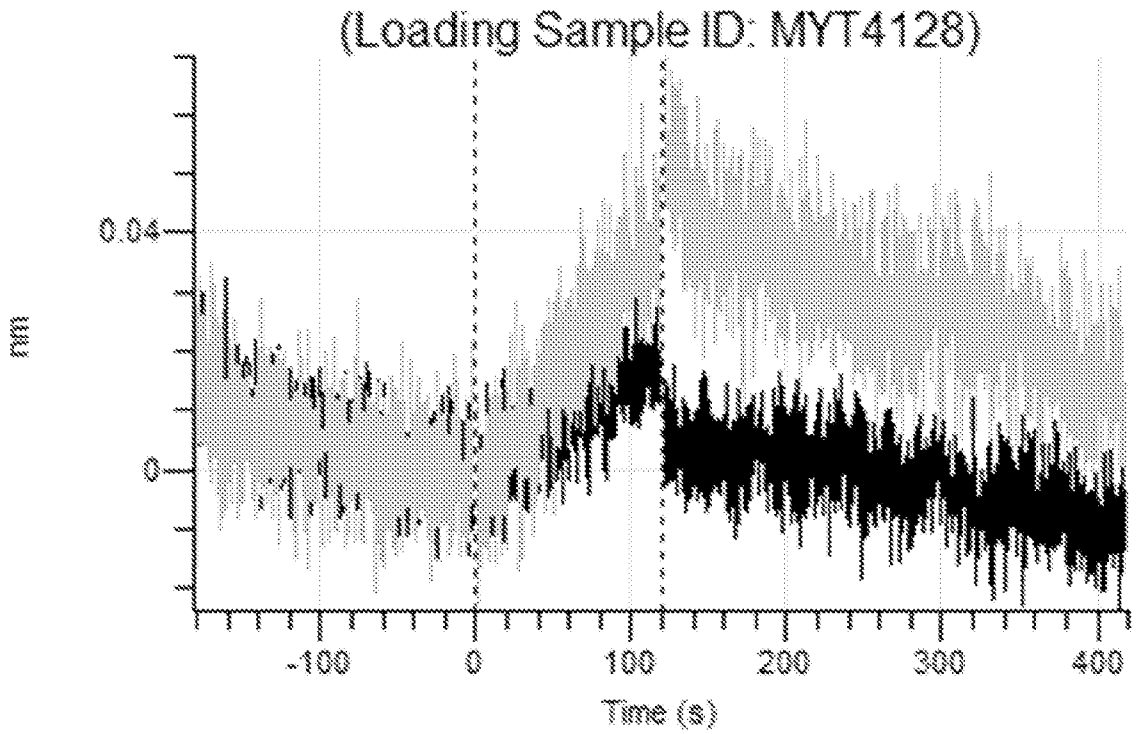


FIG. 35AN

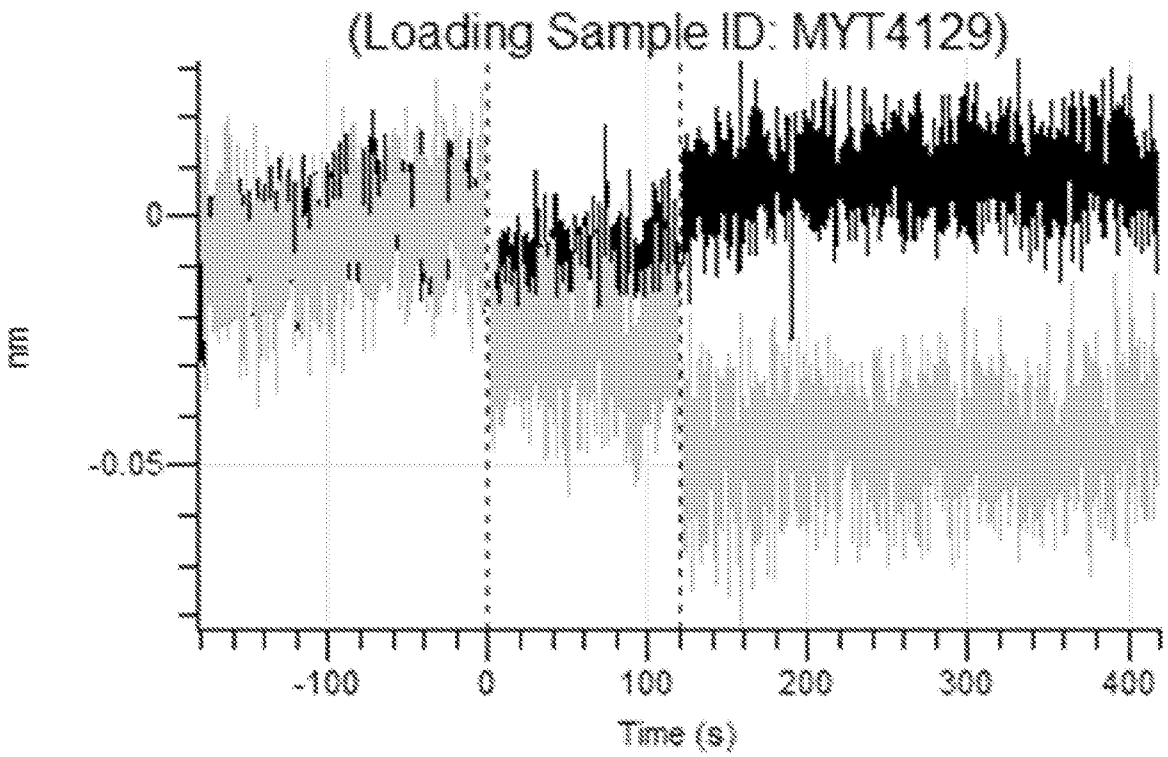


FIG. 35AO

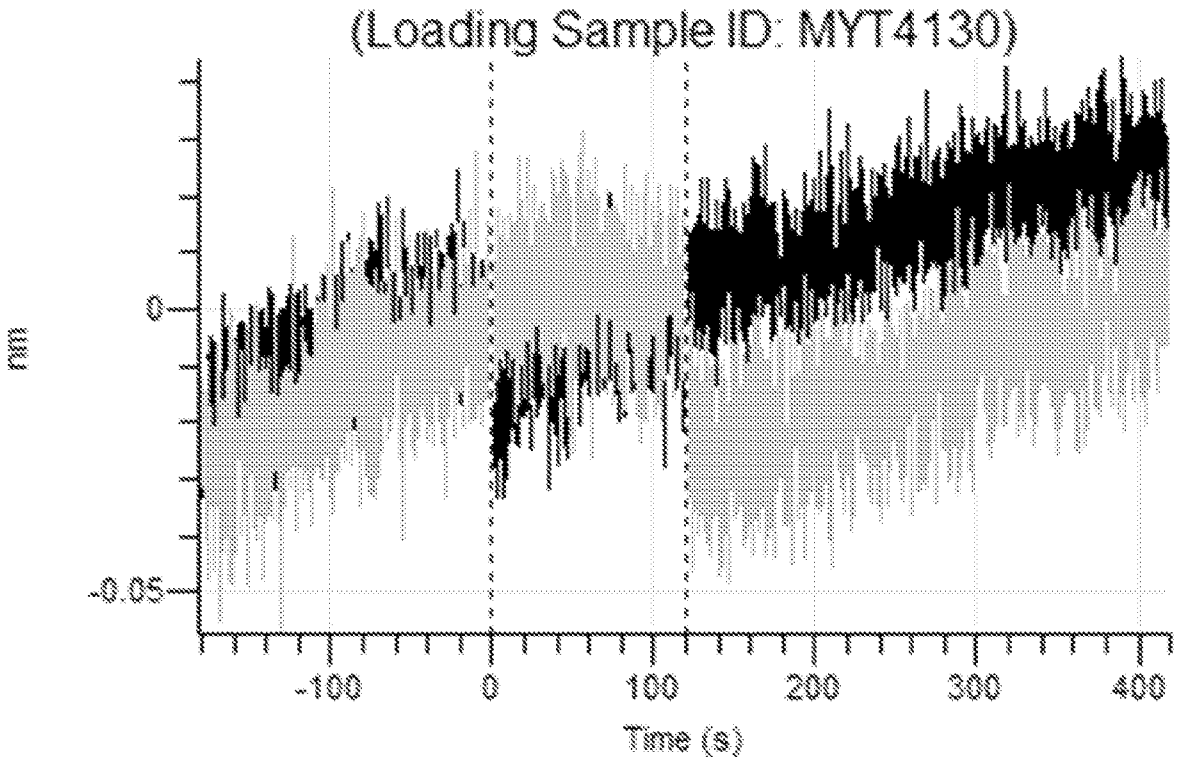


FIG. 35AP

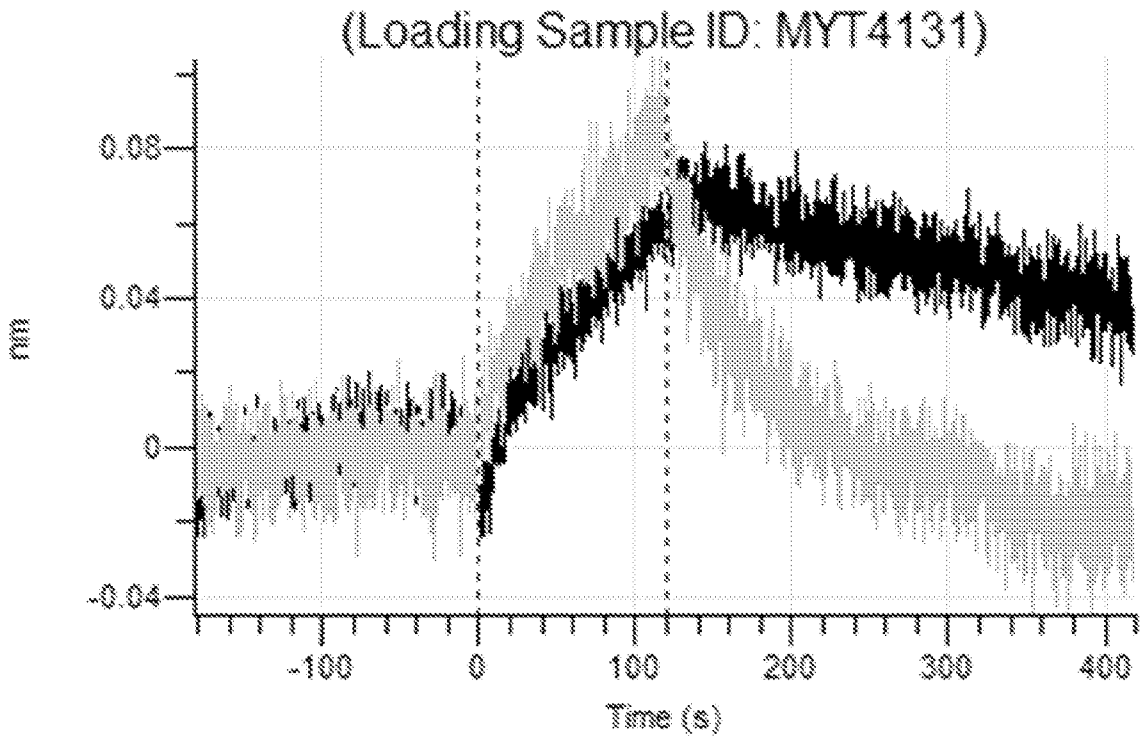

(Loading Sample ID: MYT4131)
0.08
0.04
0
-0.04
-100
0
100
200
300
400
Time (s)

FIG. 35AQ

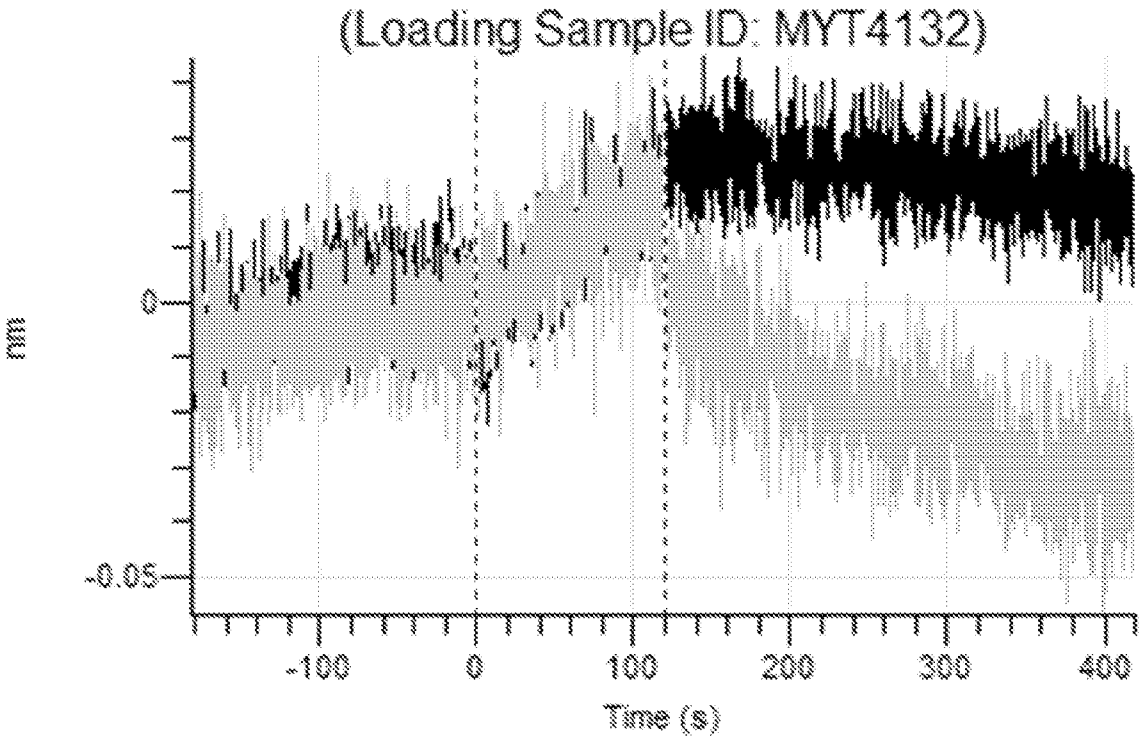


FIG. 35AR

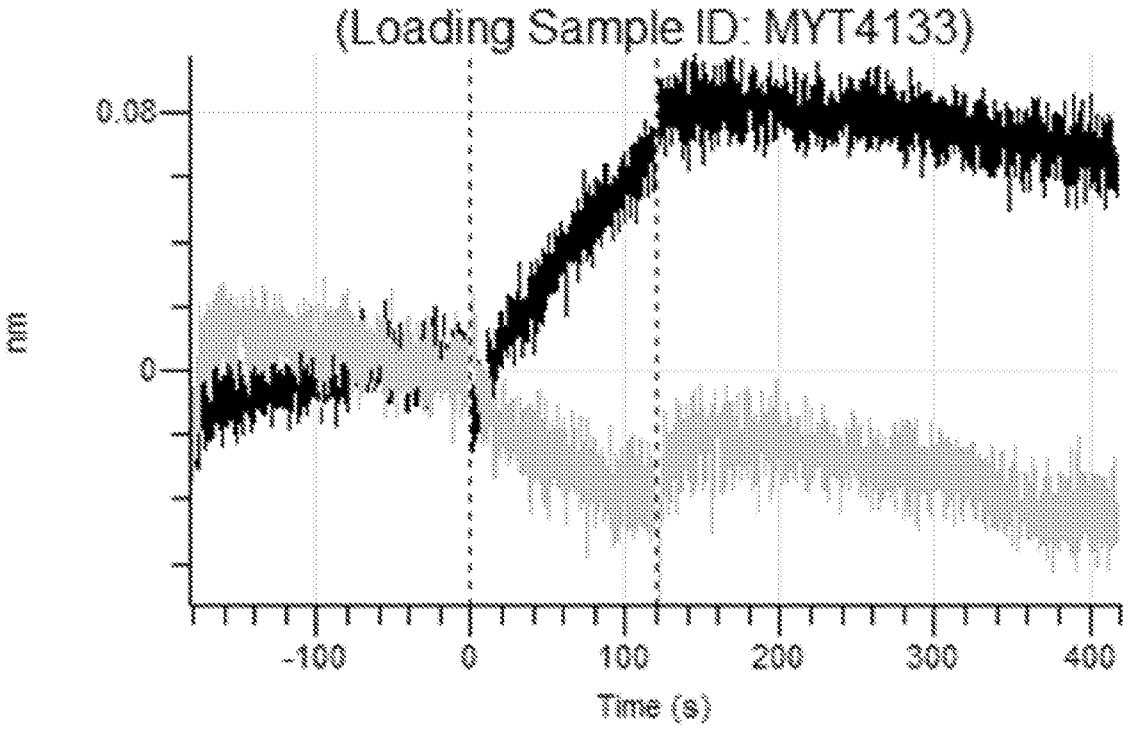


FIG. 35AS

	Heavy	Light	CDRH1	CDRH2	CDRH3	CDRL1	CDRL2	CDRL3
MYT3179 (huAD208.12.1)	272	273	274	275	276	277	278	279
MYT4090	280	273						
MYT4091	281	273						
MYT4092	282	273						
MYT4093	283	273						
MYT4094	284	273						
MYT4095	285	273						
MYT4096	286	273						
MYT4097	287	273						
MYT4098	288	273						
MYT4099	289	273						
MYT4100	290	273						
MYT4101	291	273						
MYT4102	292	273						
MYT4103	293	273						
MYT4104	294	273						
MYT4105	295	273						
MYT4106	296	273						
MYT4107	297	273						
MYT4108	298	273						
MYT4109	299	273						
MYT4110	300	273						
MYT4111	301	273						
MYT4112	302	273						
MYT4113	303	273						
MYT4114	304	273						
MYT4115	305	273						
MYT4116	306	273						
MYT4117	307	273						
MYT4118	308	273						
MYT4119	309	273						
MYT4120	310	273						
MYT4121	311	273						
MYT4122	312	273						
MYT4123	313	273						
MYT4124	314	273						
MYT4125	315	273						
MYT4126	316	273						
MYT4127	317	273						
MYT4128	318	273						
MYT4129	319	273						
MYT4130	320	273						
MYT4131	321	273						
MYT4132	322	273						
MYT4133	323	273						

FIG. 36

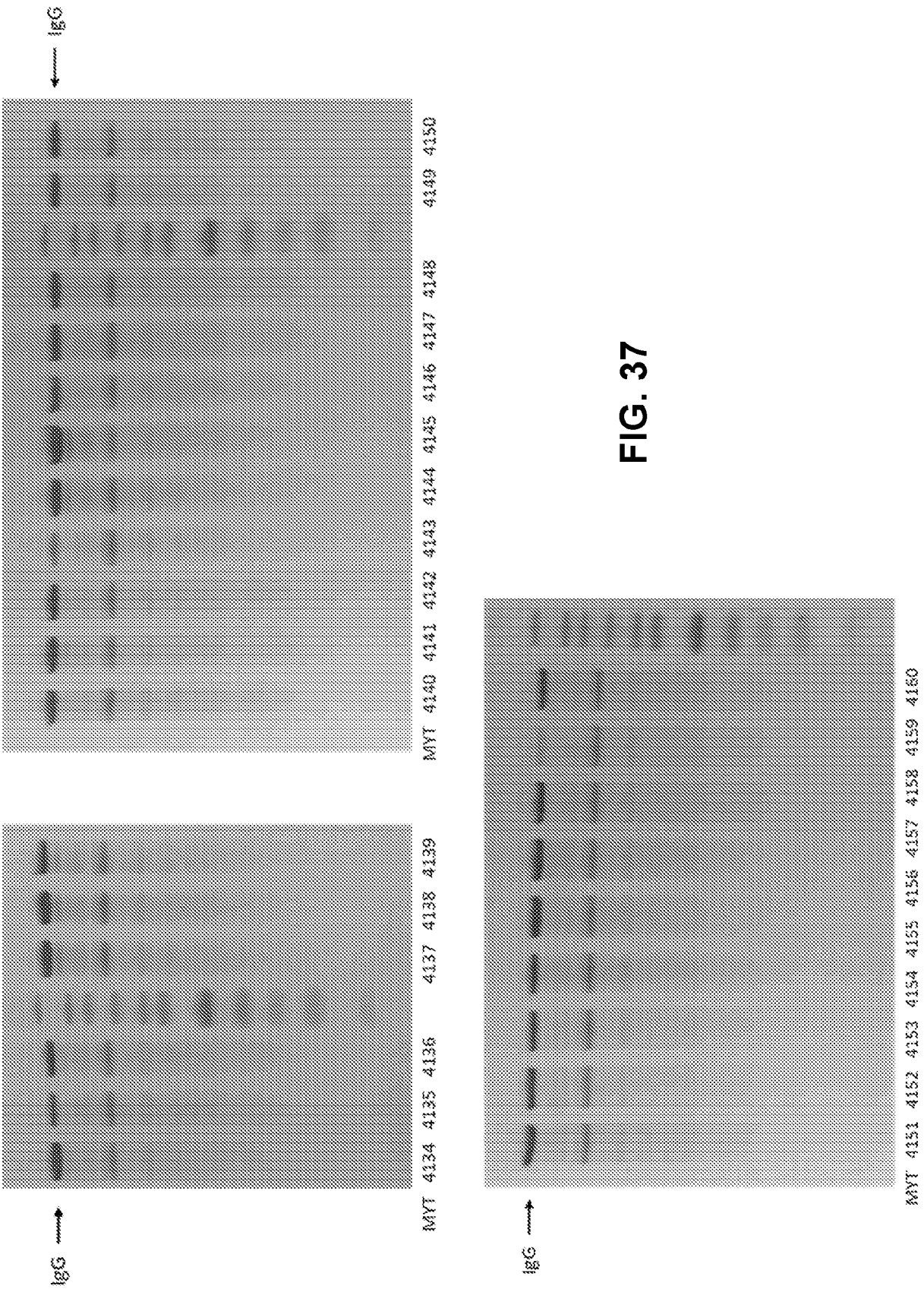

IgG
MYT 4134 4135 4136 4137 4138 4139
MYT 4140 4141 4142 4143 4144 4145 4146 4147 4148 4149 4150
IgG
MYT 4151 4152 4153 4154 4155 4156 4157 4158 4159 4160

FIG. 37

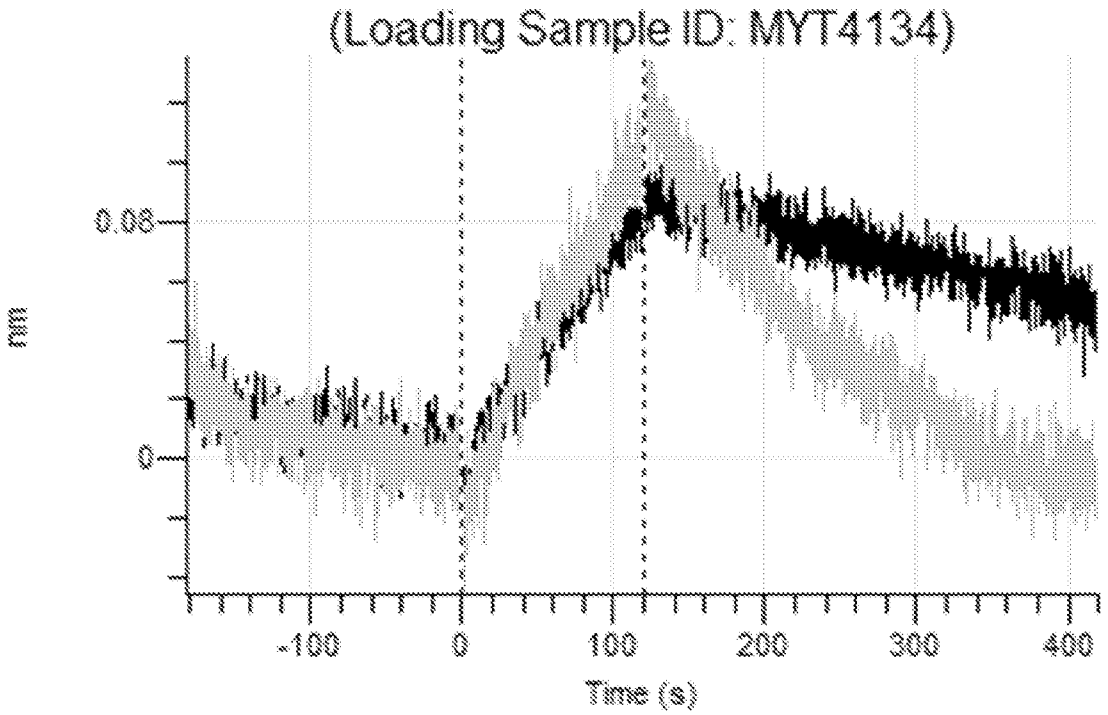


FIG. 38A

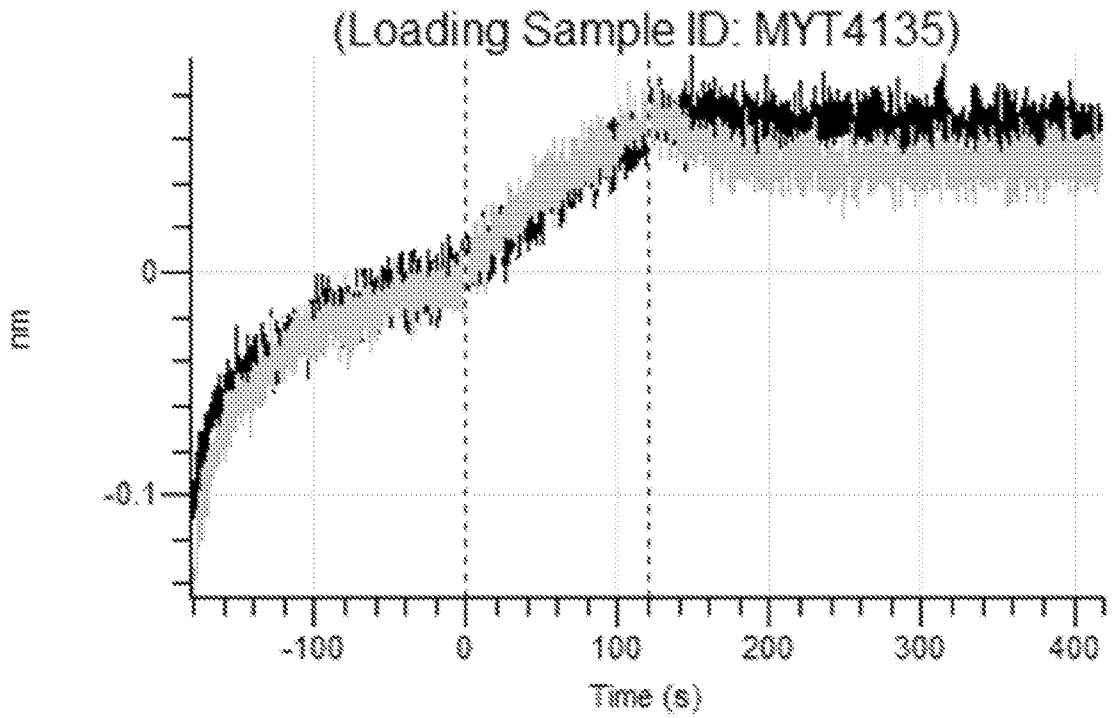


FIG. 38B

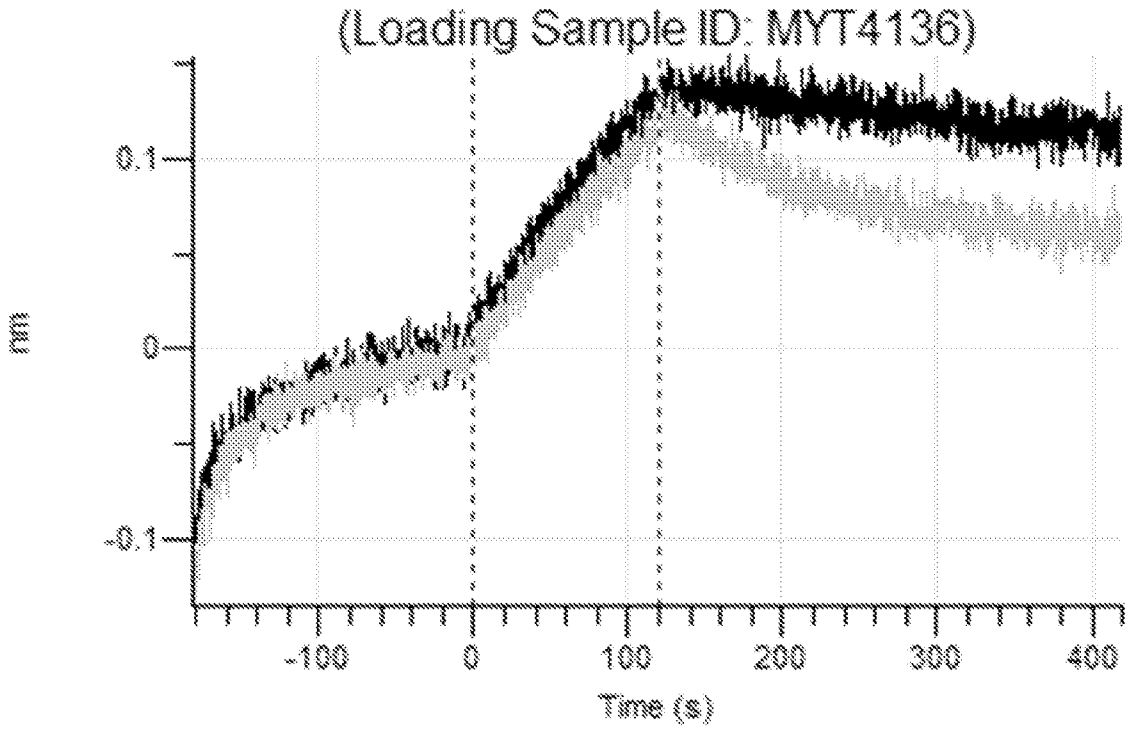

(Loading Sample ID: MYT4136)
nm
0.1
0
-0.1
-100
0
100
200
300
400
Time (s)

FIG. 38C

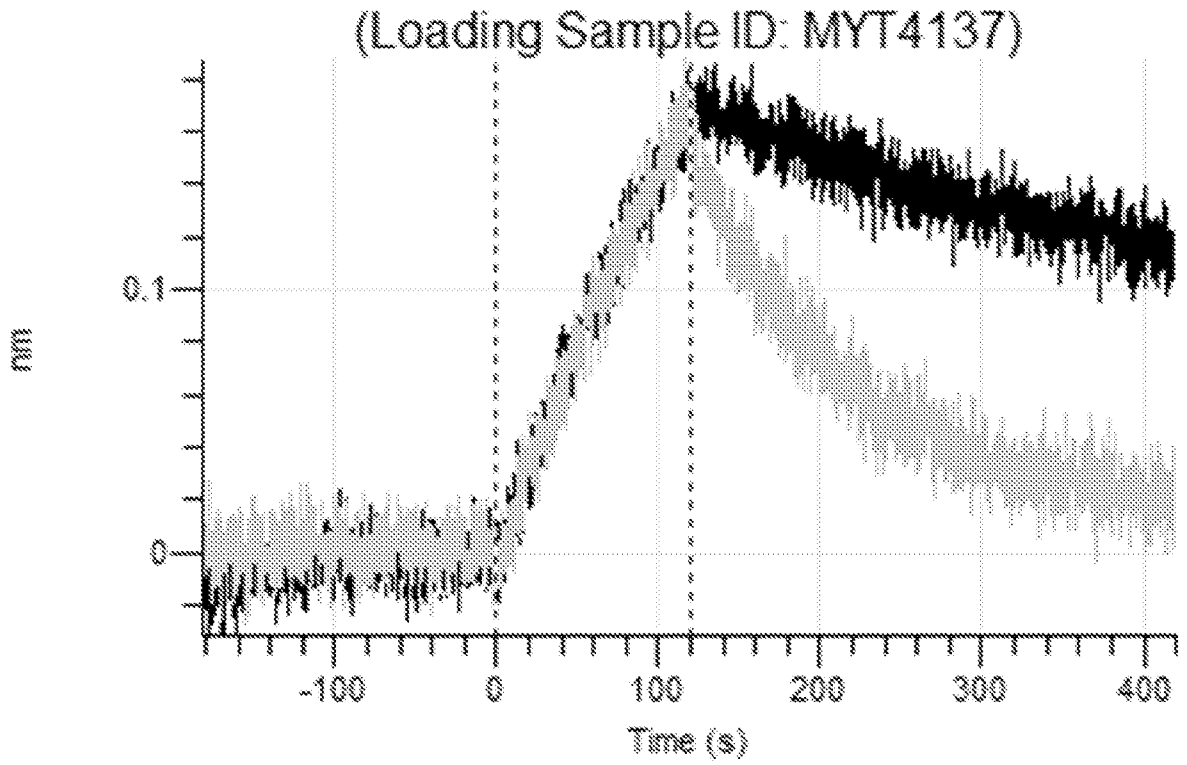


FIG. 38D

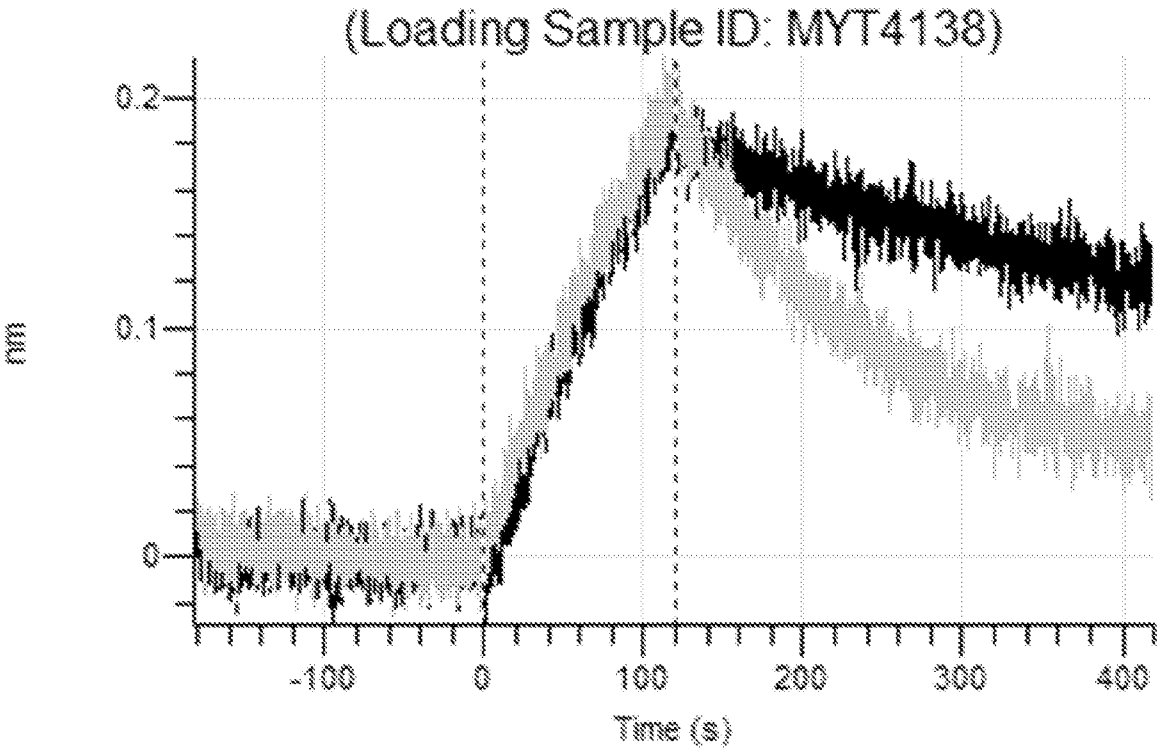

(Loading Sample ID: MYT4138)
nm
0.2
0.1
0
-100
0
100
200
300
400
Time (s)

FIG. 38E

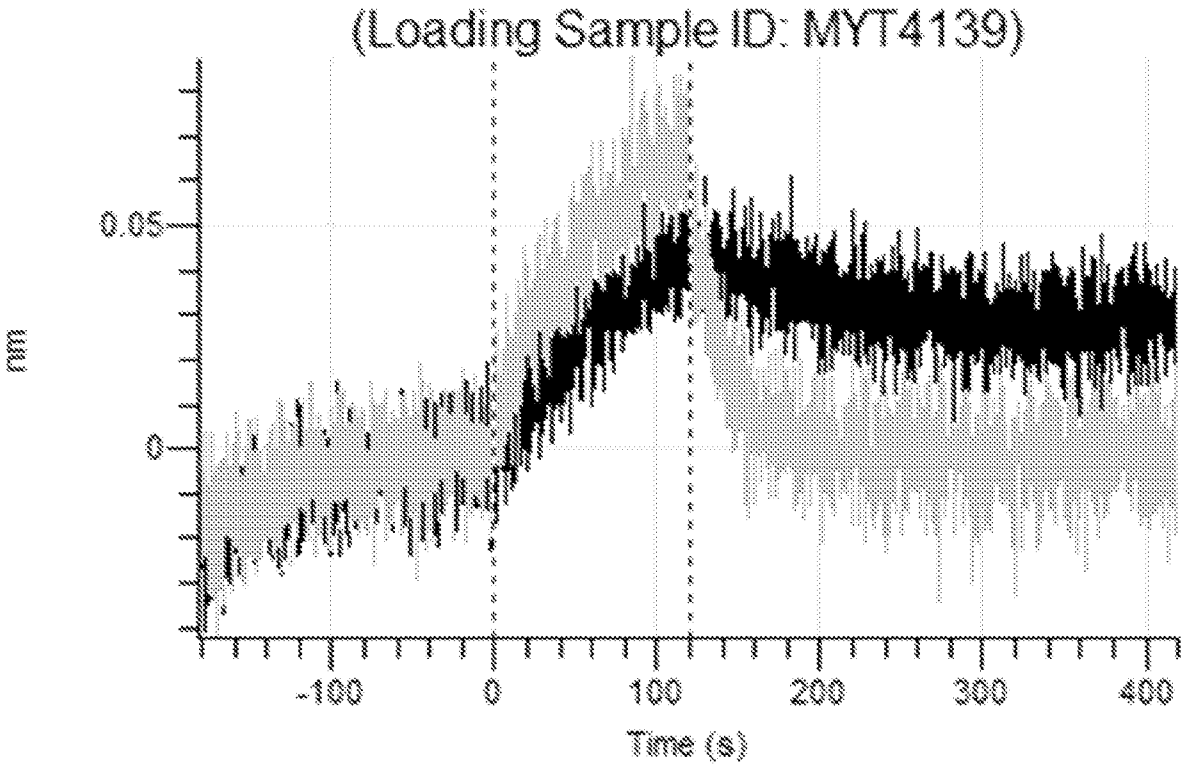


FIG. 38F

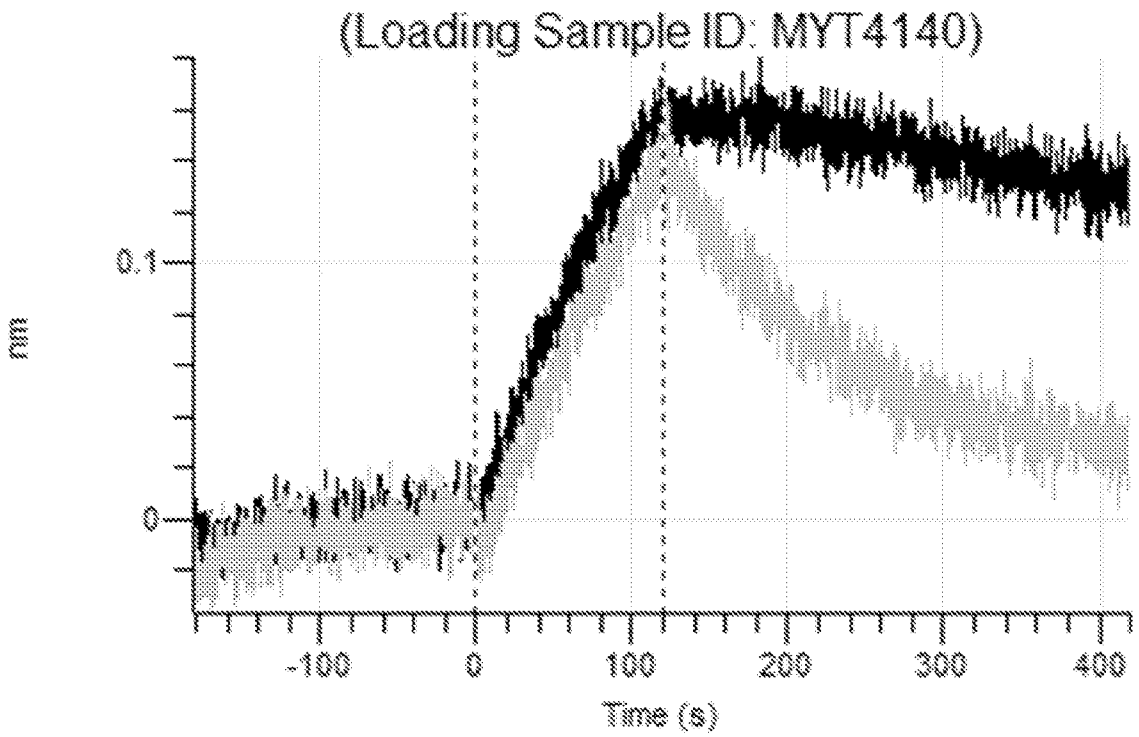


FIG. 38G

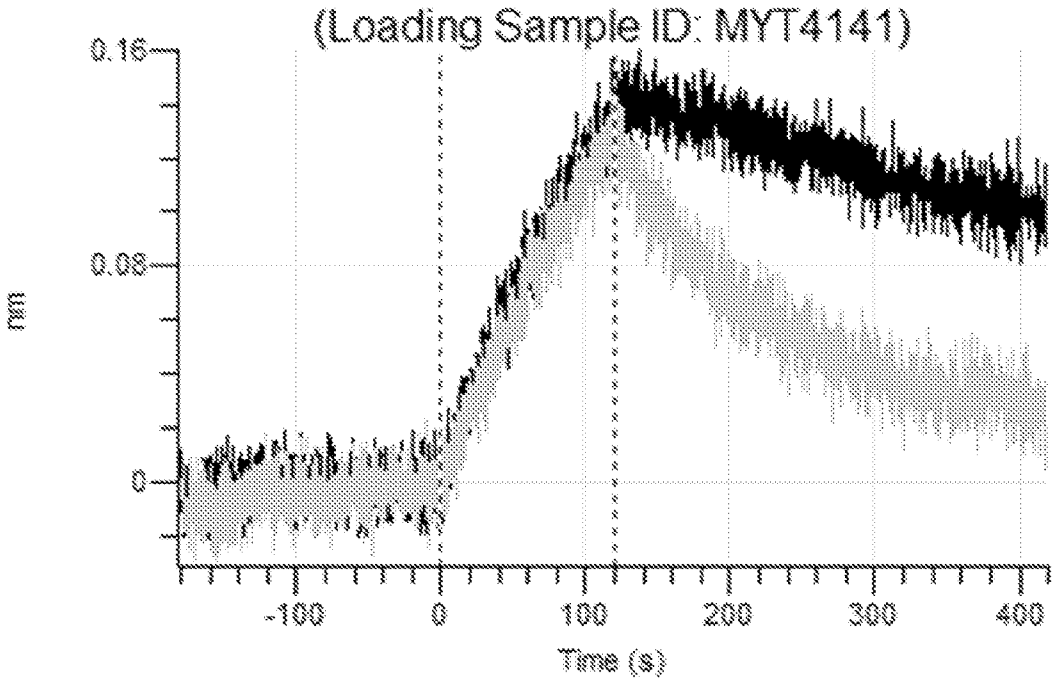

(Loading Sample ID: MYT4141)
0.16
0.08
0
nm
-100
0
100
200
300
400
Time (s)

FIG. 38H

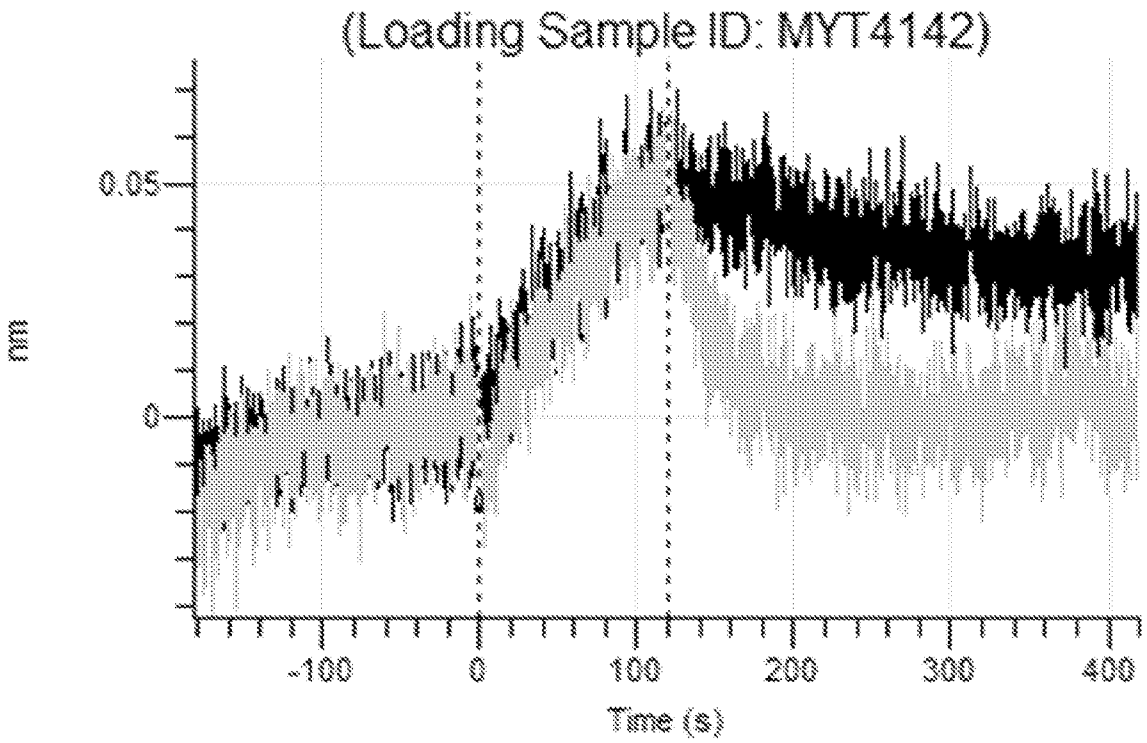


FIG. 38I

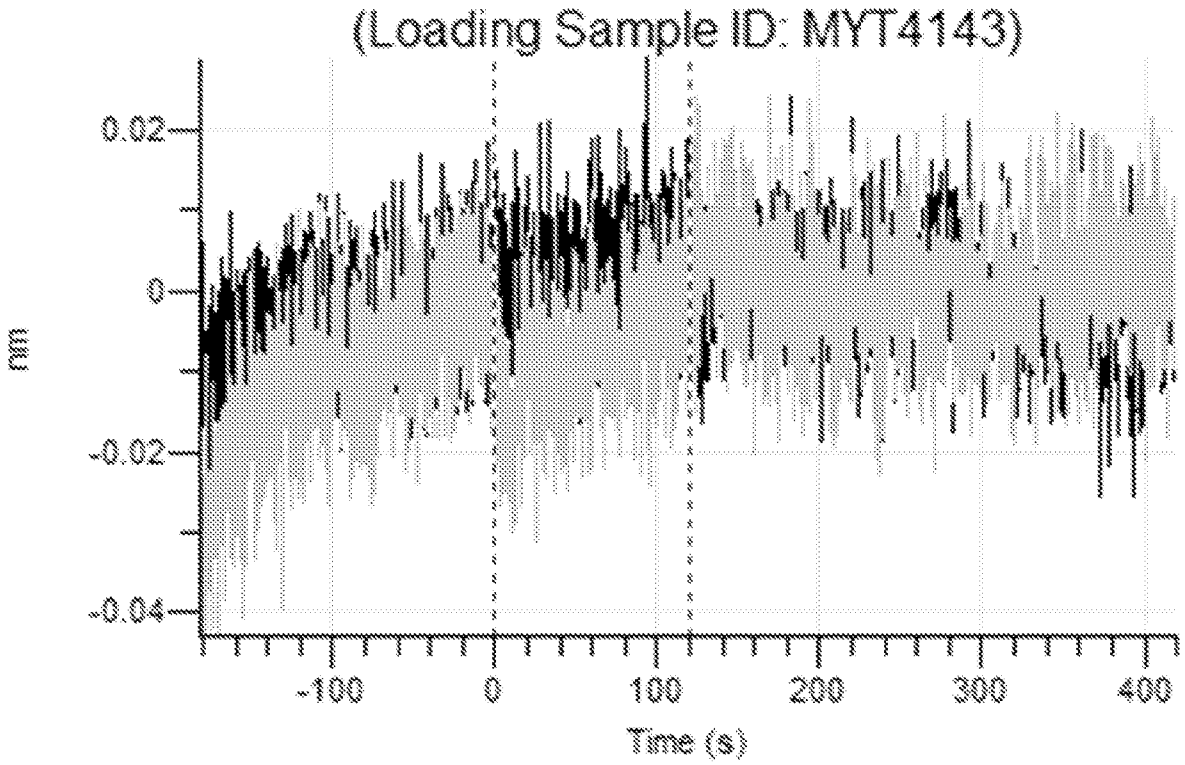

(Loading Sample ID: MYT4143)
0.02
0
-0.02
-0.04
mm
-100
0
100
200
300
400
Time (s)

FIG. 38J

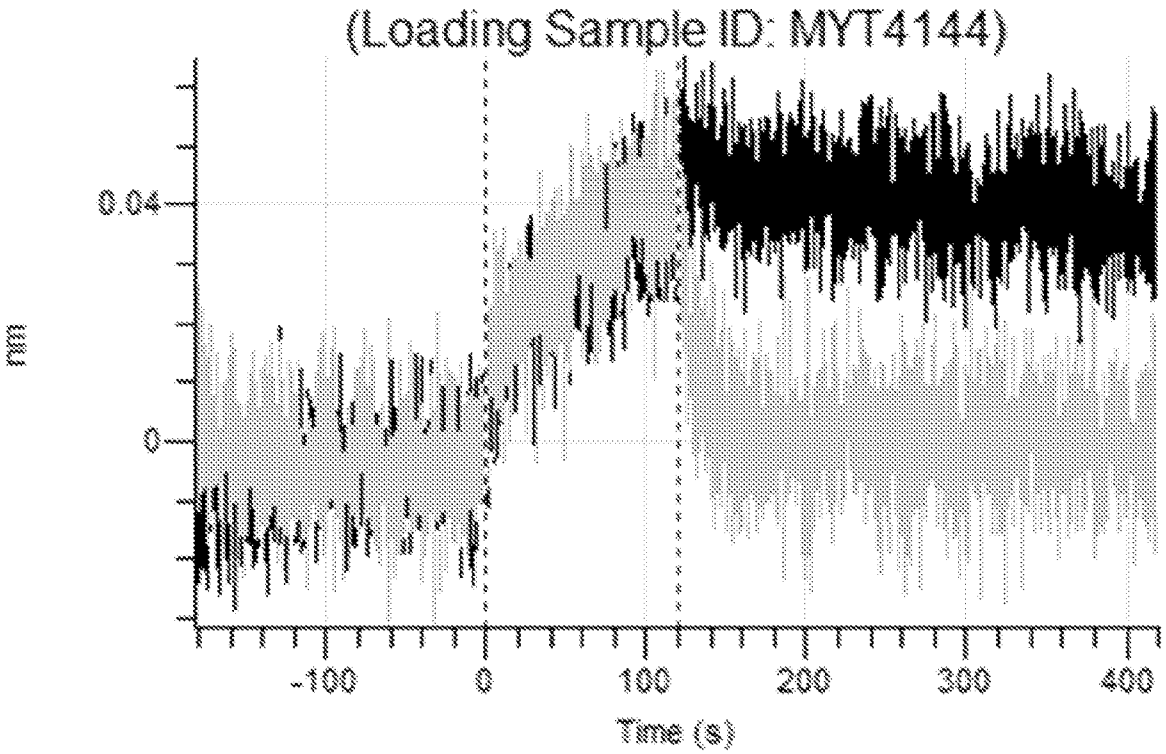


FIG. 38K

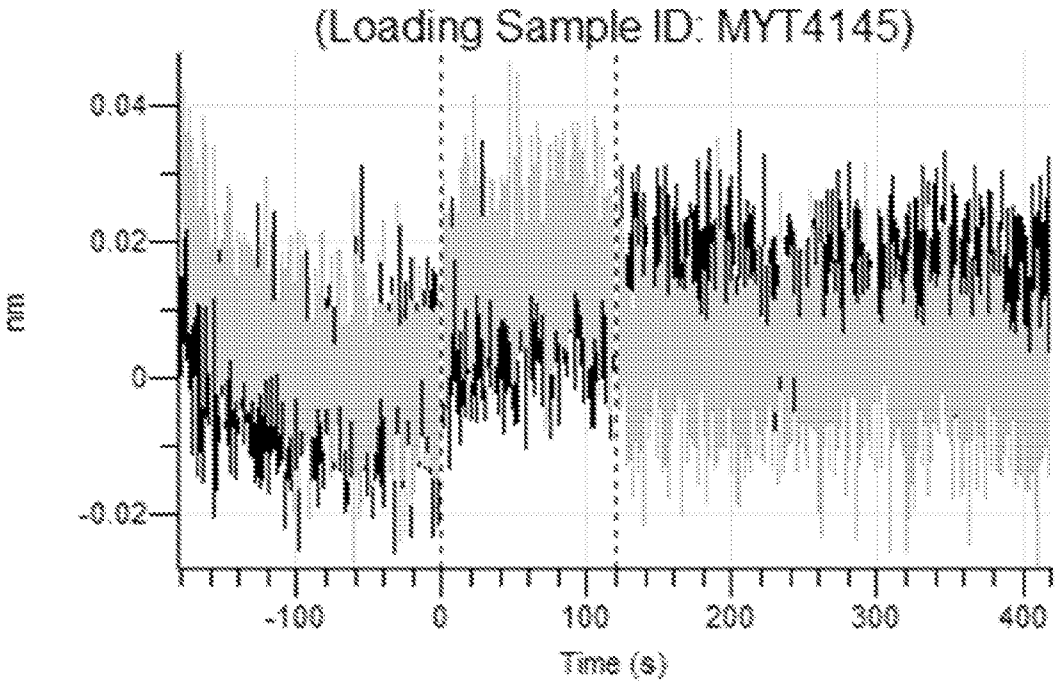

(Loading Sample ID: MYT4145)
0.04
0.02
0
-0.02
cm
-100
0
100
200
300
400
Time (s)

FIG. 38L

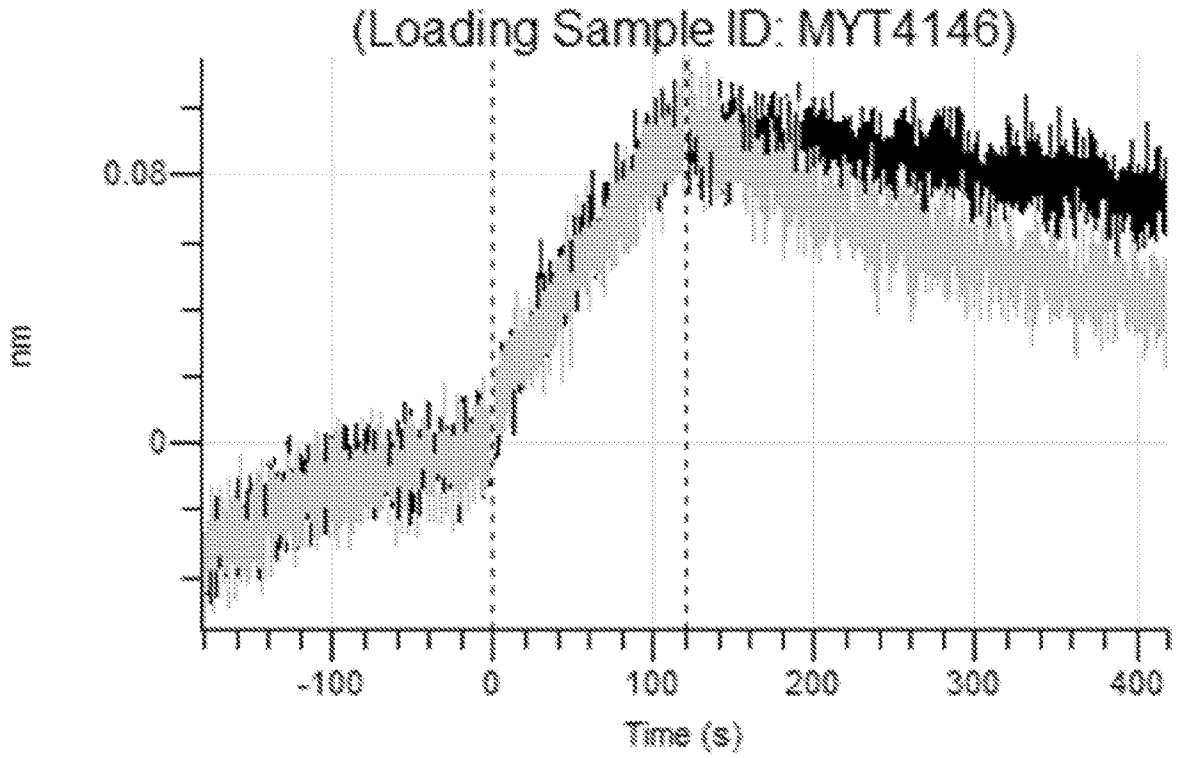


FIG. 38M

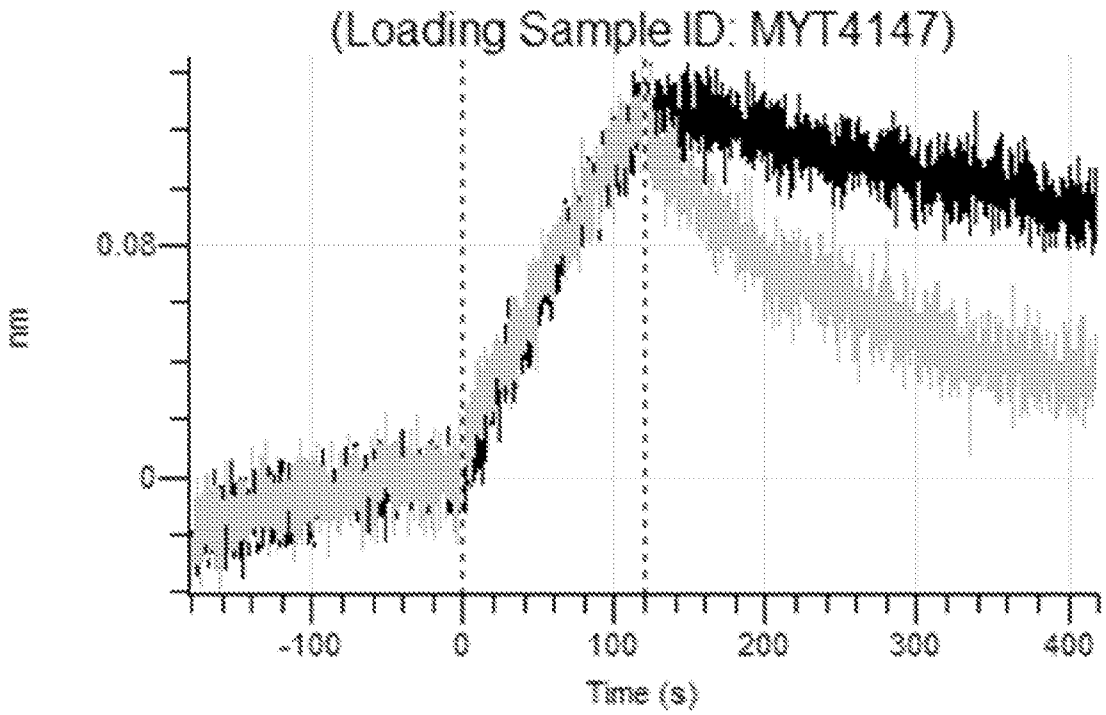


FIG. 38N

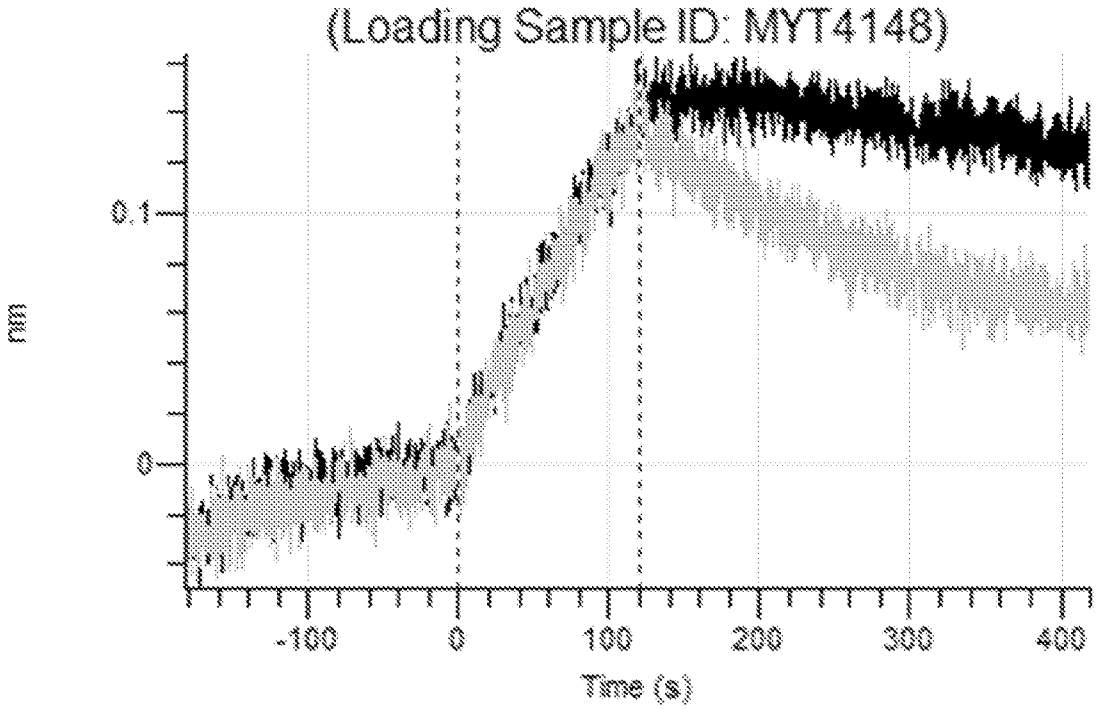


FIG. 38O

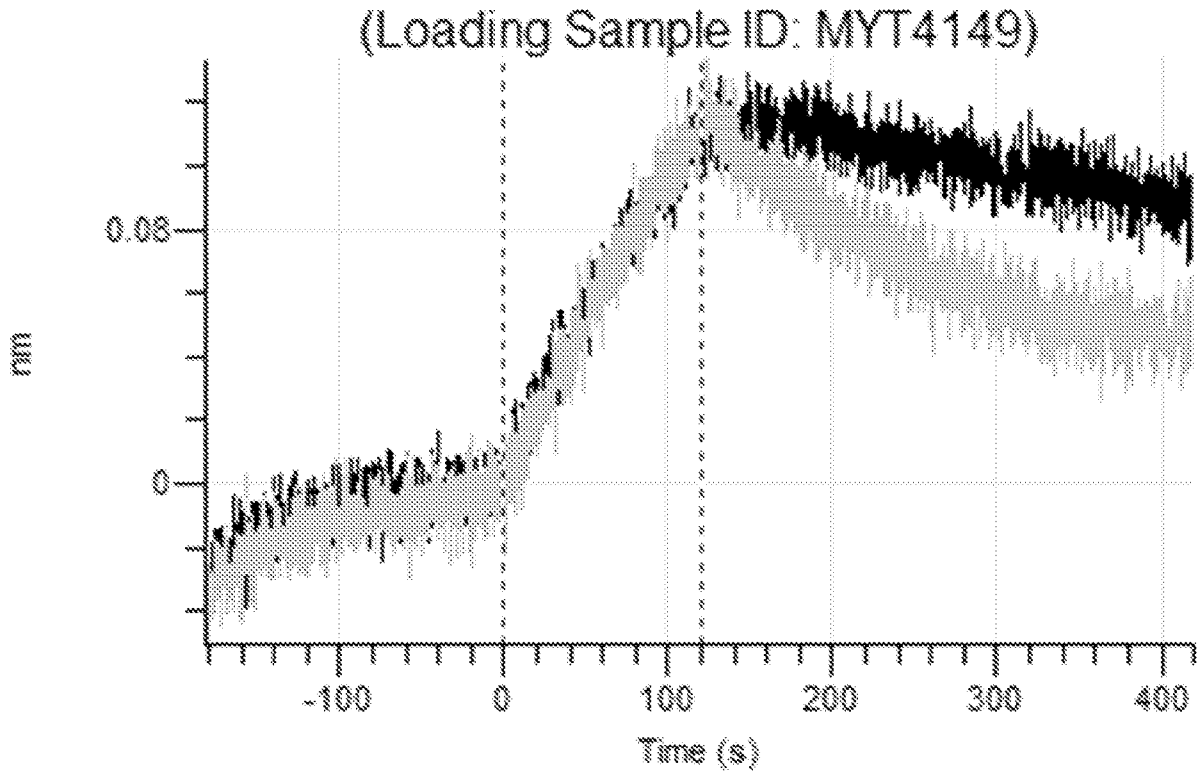


FIG. 38P

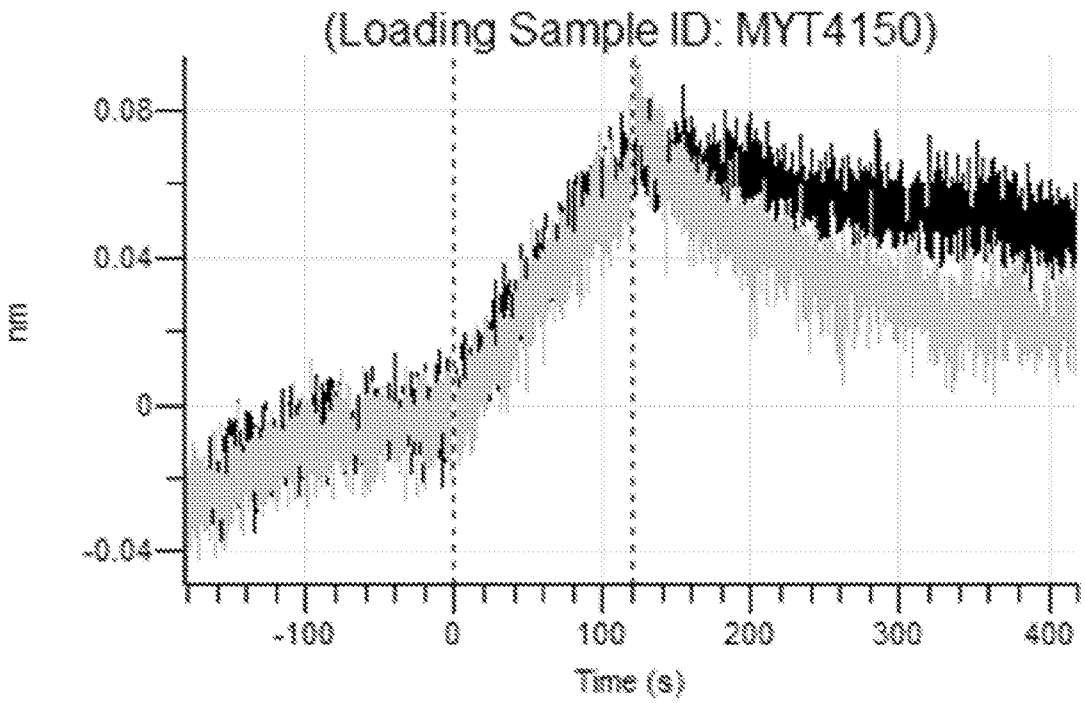

(Loading Sample ID: MYT4150)
0.08
0.04
0
-0.04
nm
-100
0
100
200
300
400
Time (s)

FIG. 38Q

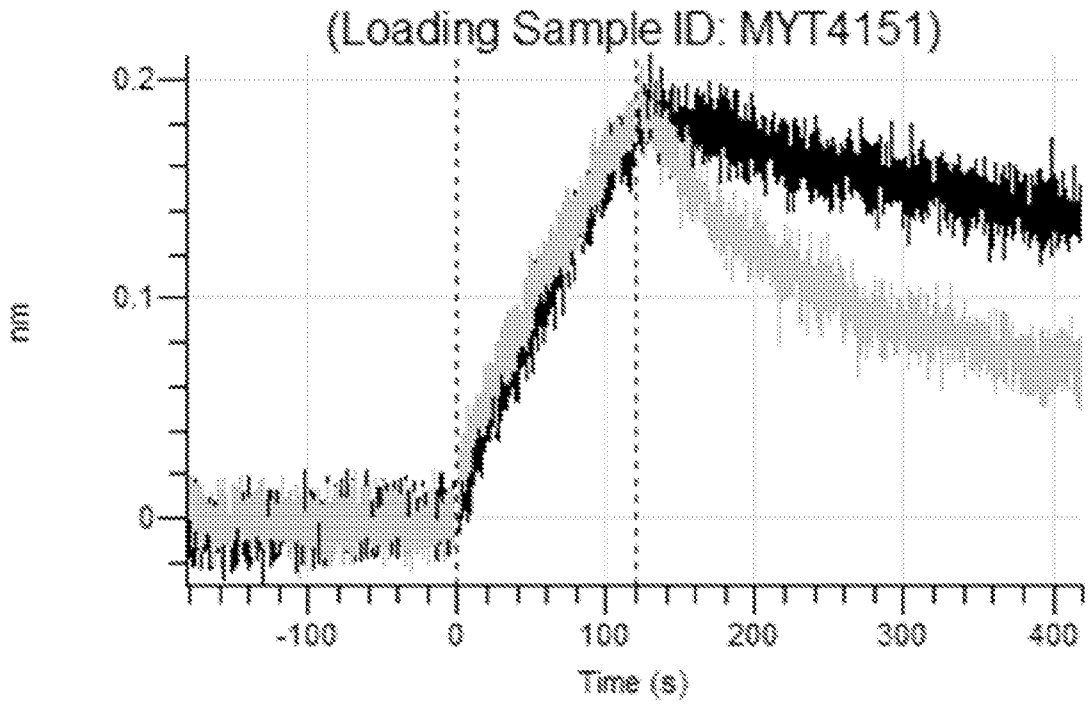

(Loading Sample ID: MYT4151)
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)

FIG. 38R

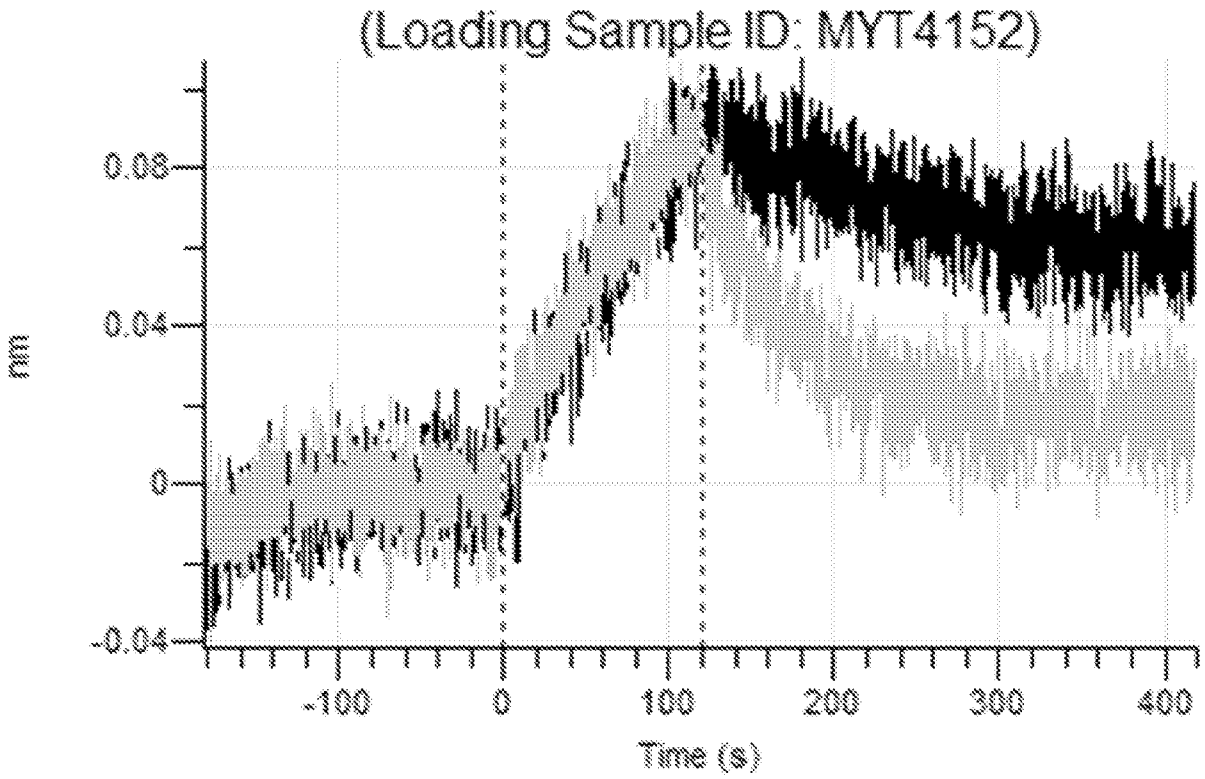

(Loading Sample ID: MYT4152)
0.08
0.04
0
-0.04
nm
-100
0
100
200
300
400
Time (s)

FIG. 38S

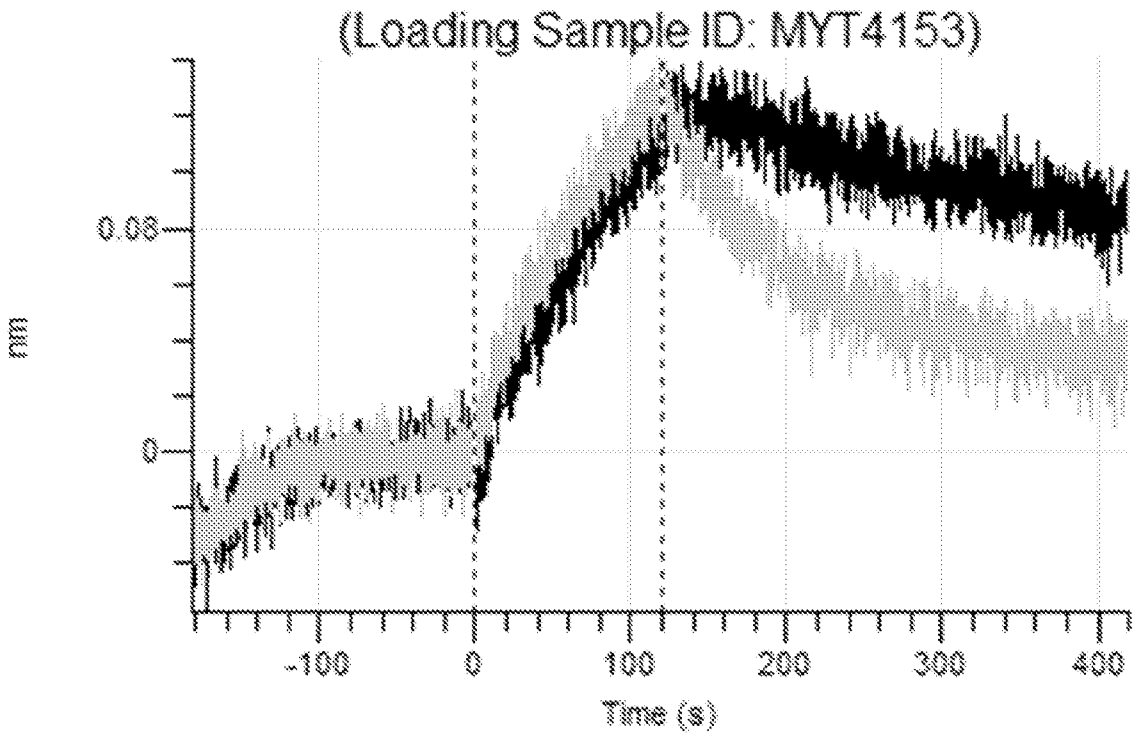


FIG. 38T

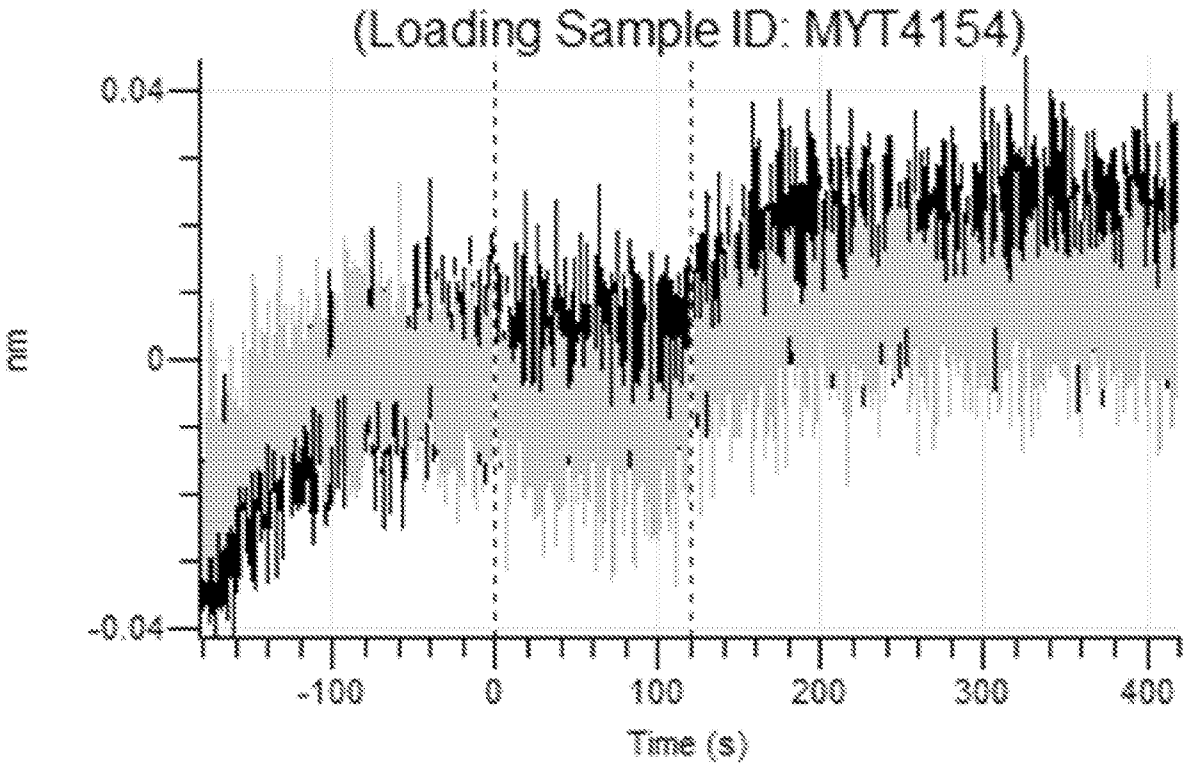

(Loading Sample ID: MYT4154)
0.04
0
-0.04
nm
-100
0
100
200
300
400
Time (s)

FIG. 38U

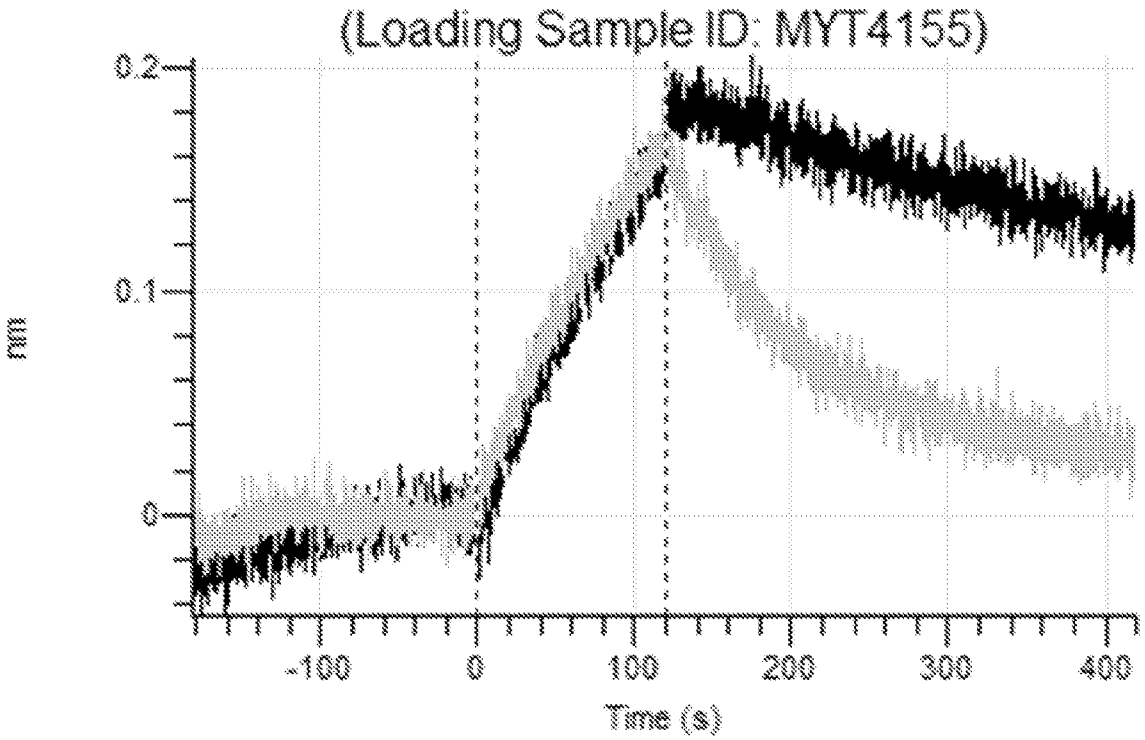

(Loading Sample ID: MYT4155)
0.2
0.1
0
nm
-100
0
100
200
300
400
Time (s)

FIG. 38V

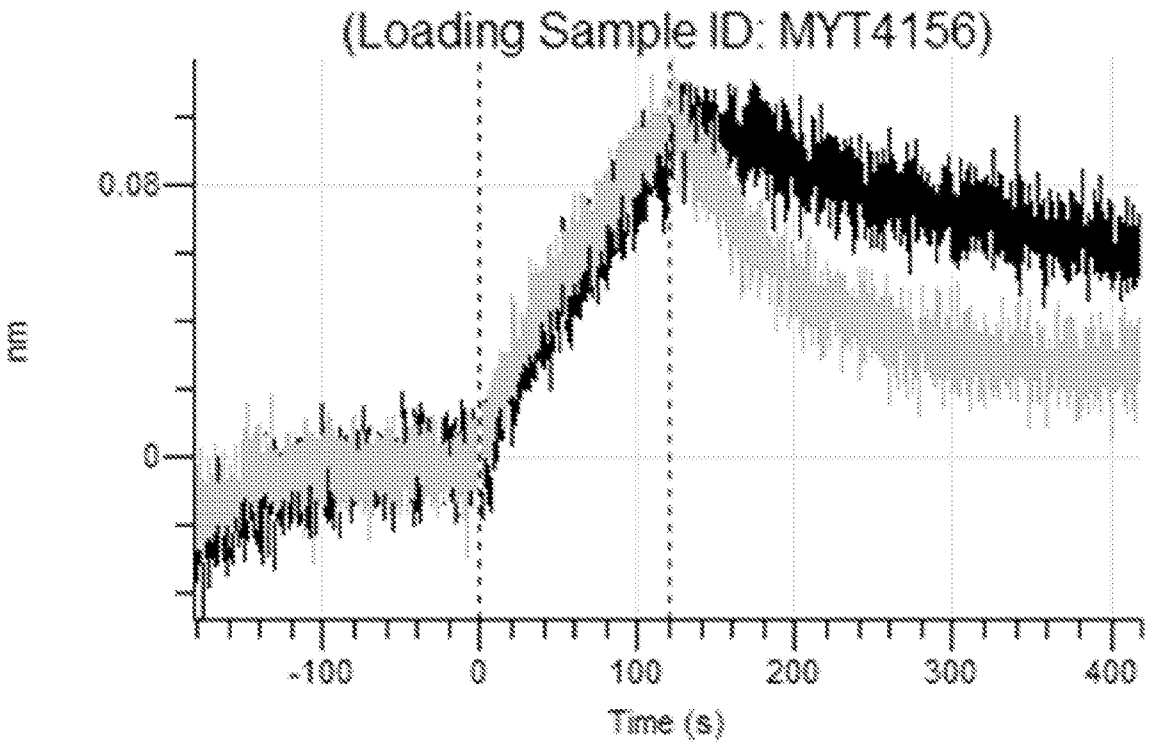


FIG. 38W

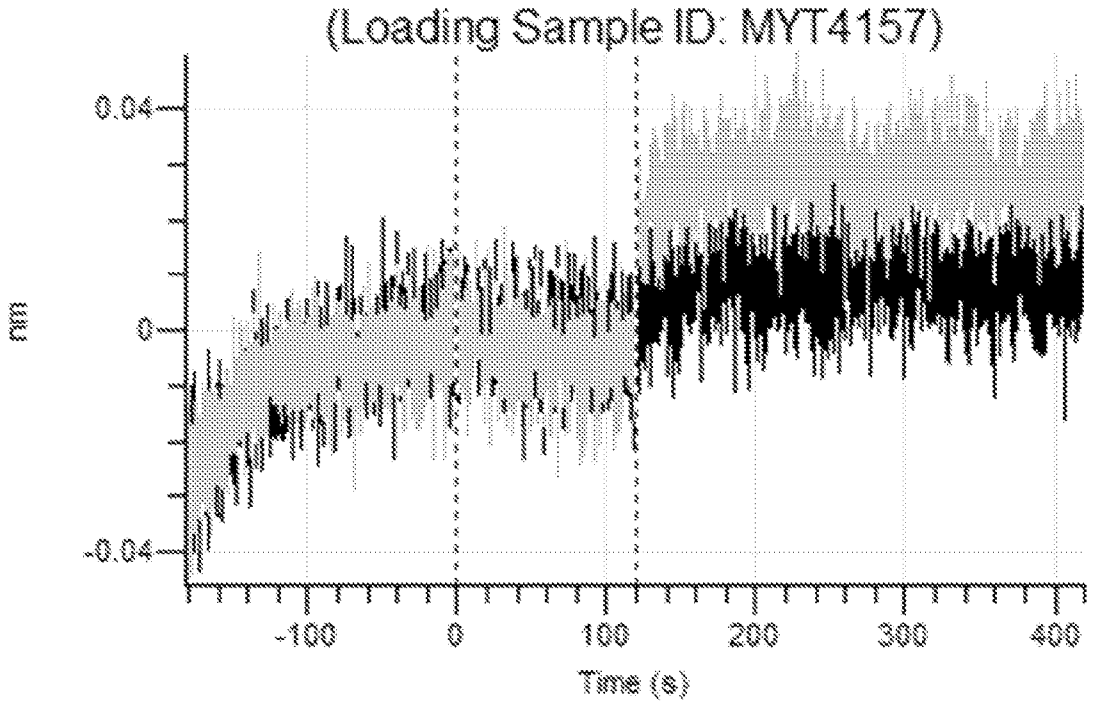

(Loading Sample ID: MYT4157)
0.04
0
-0.04
-100
0
100
200
300
400
Time (s)

FIG. 38X

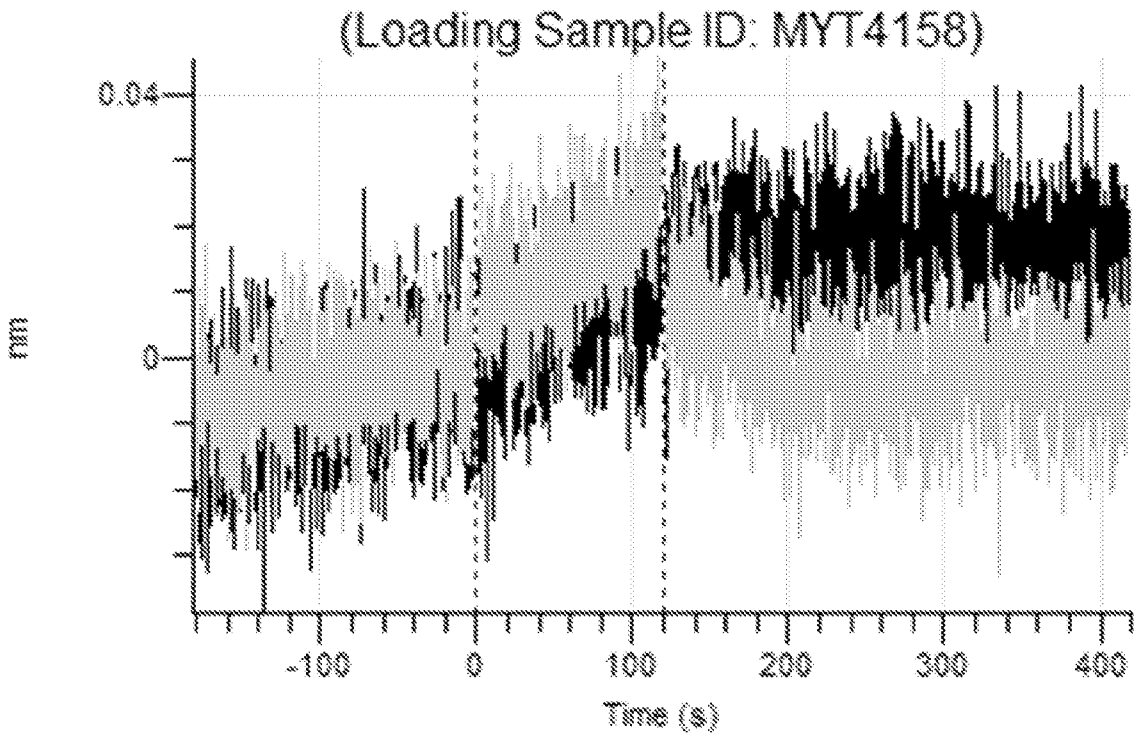


FIG. 38Y

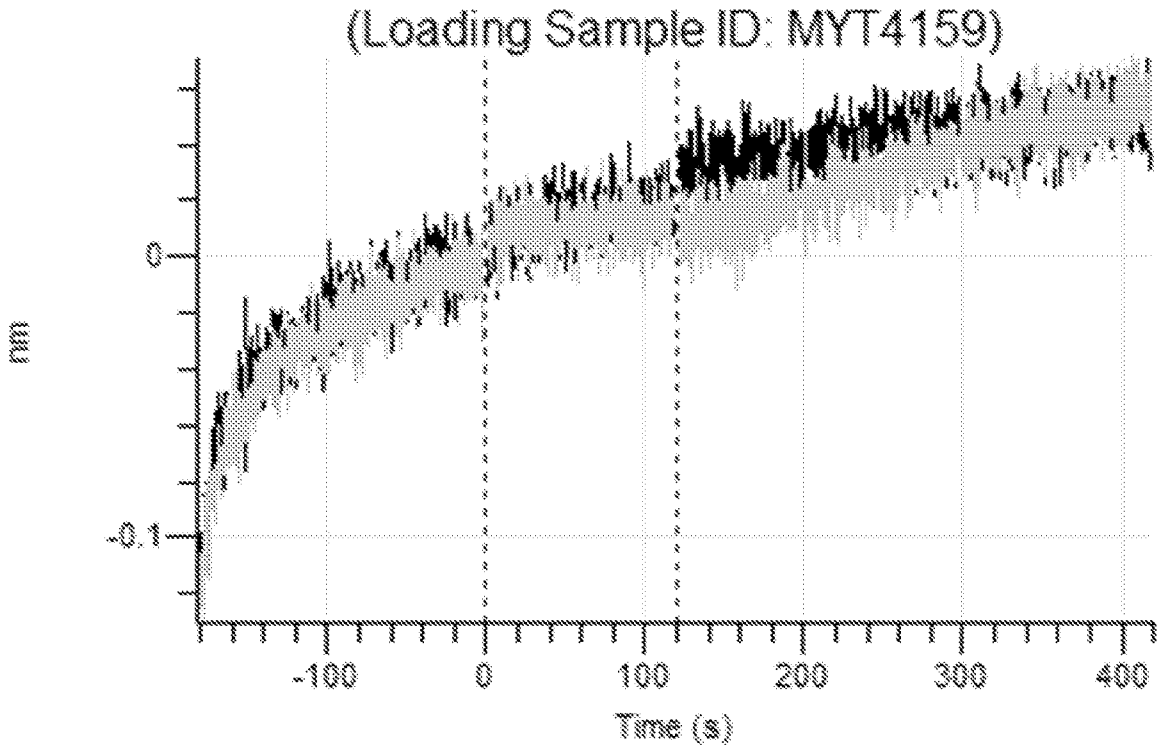


FIG. 38Z

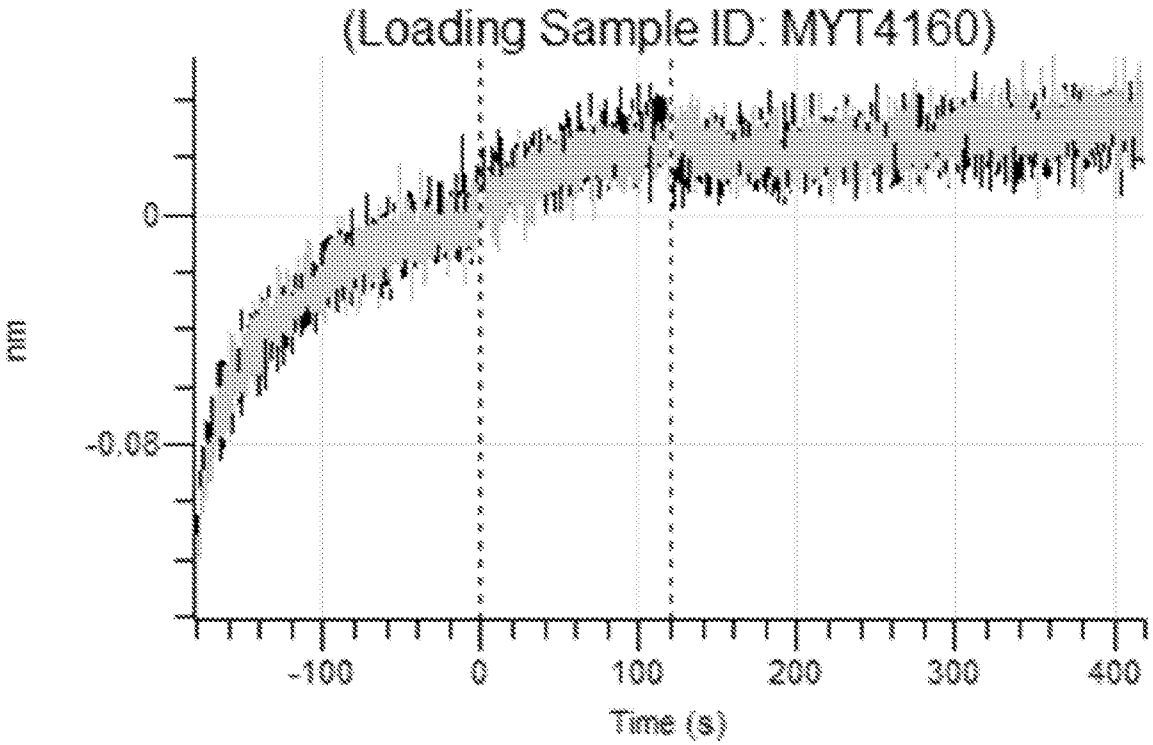


FIG. 38AA

	Heavy	Light	CDRH1	CDRH2	CDRH3	CDRL1	CDRL2	CDRL3
MYT3179 (huAD208.12.1)	272	273	274	275	276	277	278	279
MYT4134	272	324						
MYT4135	272	325						
MYT4136	272	326						
MYT4137	272	327						
MYT4138	272	328						
MYT4139	272	329						
MYT4140	272	330						
MYT4141	272	331						
MYT4142	272	332						
MYT4143	272	333						
MYT4144	272	334						
MYT4145	272	335						
MYT4146	272	336						
MYT4147	272	337						
MYT4148	272	338						
MYT4149	272	339						
MYT4150	272	340						
MYT4151	272	341						
MYT4152	272	342						
MYT4153	272	343						
MYT4154	272	344						
MYT4155	272	345						
MYT4156	272	346						
MYT4157	272	347						
MYT4158	272	348						
MYT4159	272	349						
MYT4160	272	350						

FIG. 39

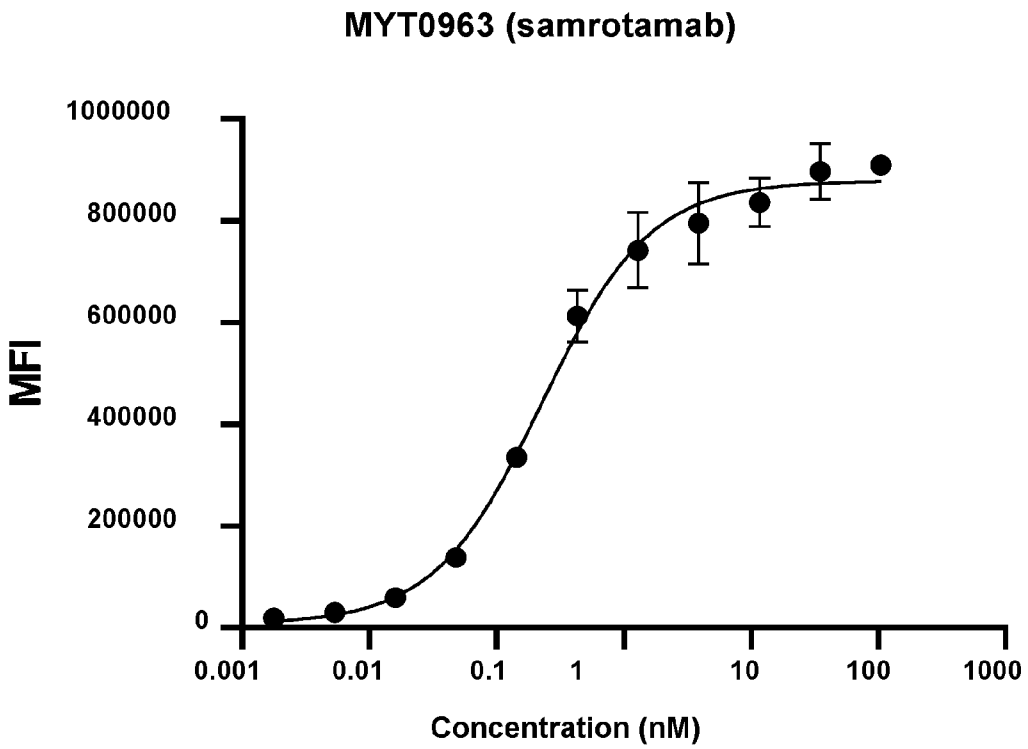

MYT0963 (samrotamab)
MFI
1000000
800000
600000
400000
200000
0
0.001
0.01
0.1
1
10
100
1000
Concentration (nM)

FIG. 40A

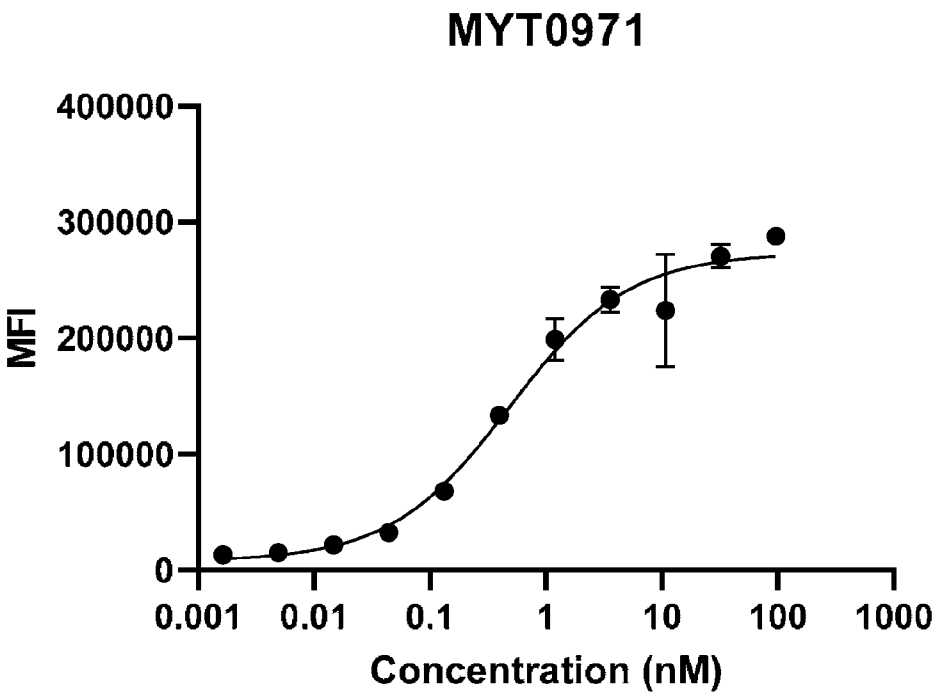

MYT0971
400000
300000
200000
100000
0
MFI
0.001
0.01
0.1
1
10
100
1000
Concentration (nM)

FIG. 40B

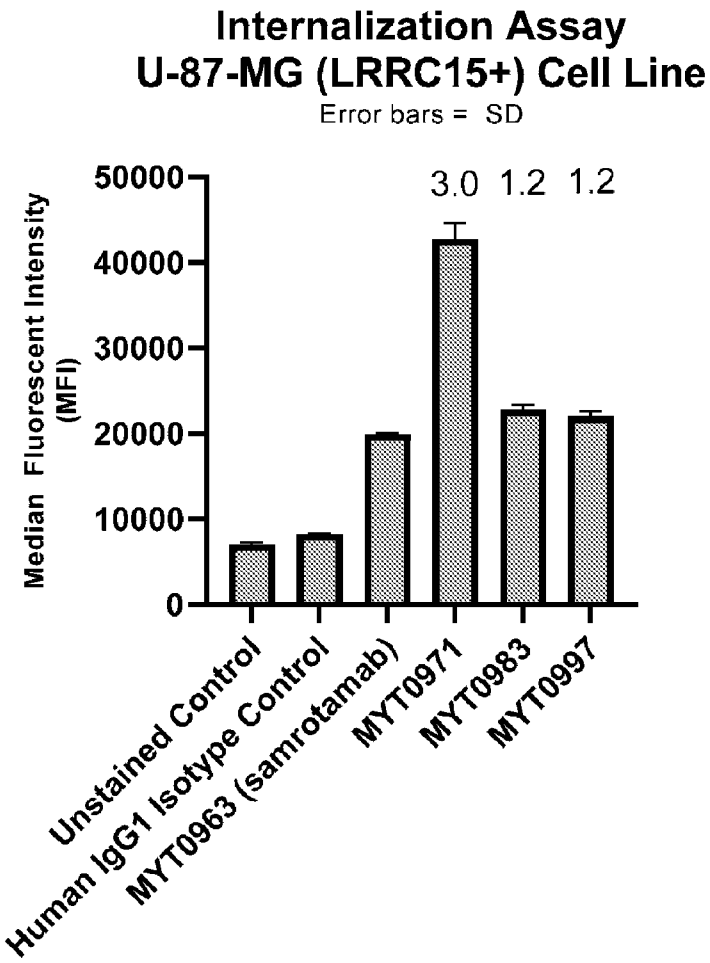

Internalization Assay
U-87-MG (LRRC15+) Cell Line
Error bars = SD
Median Fluorescent Intensity (MFI)
50000
40000
30000
20000
10000
0
3.0
1.2
1.2
Unstained Control
Human IgG1 Isotype Control
MYT0963 (samrotamab)
MYT0971
MYT0983
MYT0997

FIG. 41A

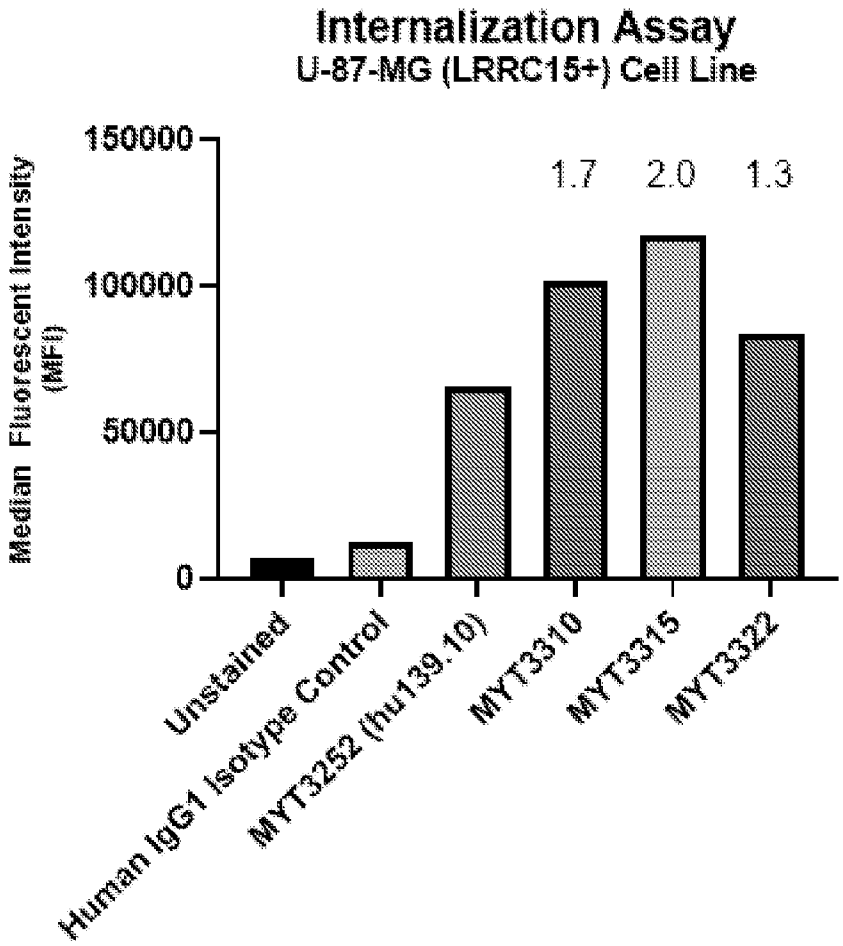

Internalization Assay
U-87-MG (LRRC15+) Cell Line
Median Fluorescent Intensity (MFI)
150000
100000
50000
0
1.7
2.0
1.3
Unstained
Human IgG1 Isotype Control
MYT3252 (hu139.10)
MYT3310
MYT3315
MYT3322

FIG. 41B

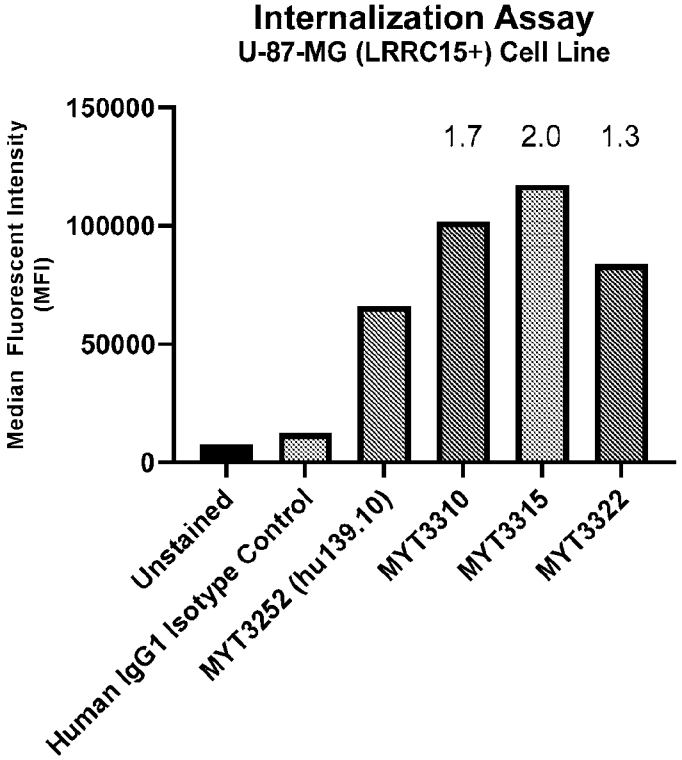

Internalization Assay
U-87-MG (LRRC15+) Cell Line
Median Fluorescent Intensity (MFI)
150000
100000
50000
0
1.7
2.0
1.3
Unstained
Human IgG1 Isotype Control
MYT3252 (hu139.10)
MYT3310
MYT3315
MYT3322

FIG. 41C

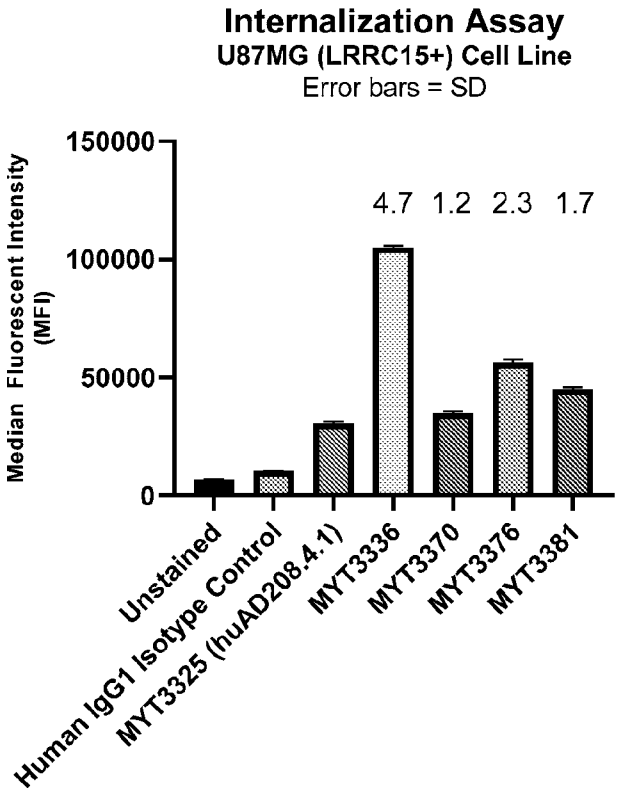

Internalization Assay
U87MG (LRRC15+) Cell Line
Error bars = SD
Median Fluorescent Intensity (MFI)
150000
100000
50000
0
4.7
1.2
2.3
1.7
Unstained
Human IgG1 Isotype Control
MYT3325 (huAD208.4.1)
MYT3336
MYT3370
MYT3376
MYT3381

FIG. 41D

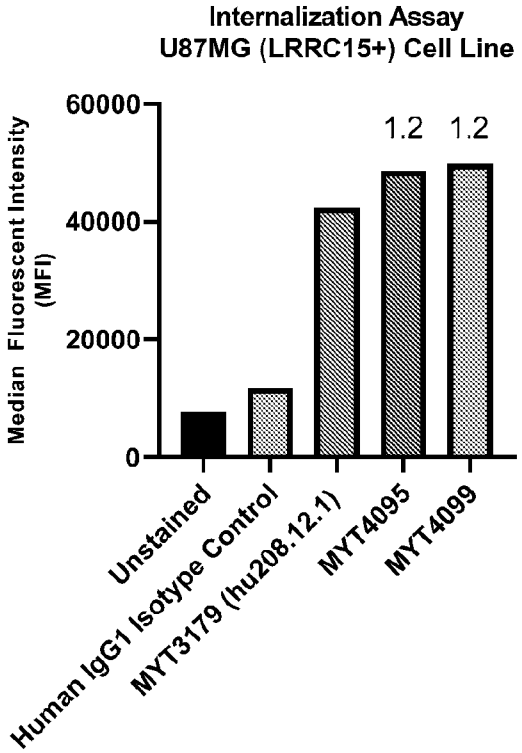

Internalization Assay
U87MG (LRRC15+) Cell Line
Median Fluorescent Intensity (MFI)
60000
40000
20000
0
1.2
1.2
Unstained
Human IgG1 Isotype Control
MYT3179 (hu208.12.1)
MYT4095
MYT4099

FIG. 41E

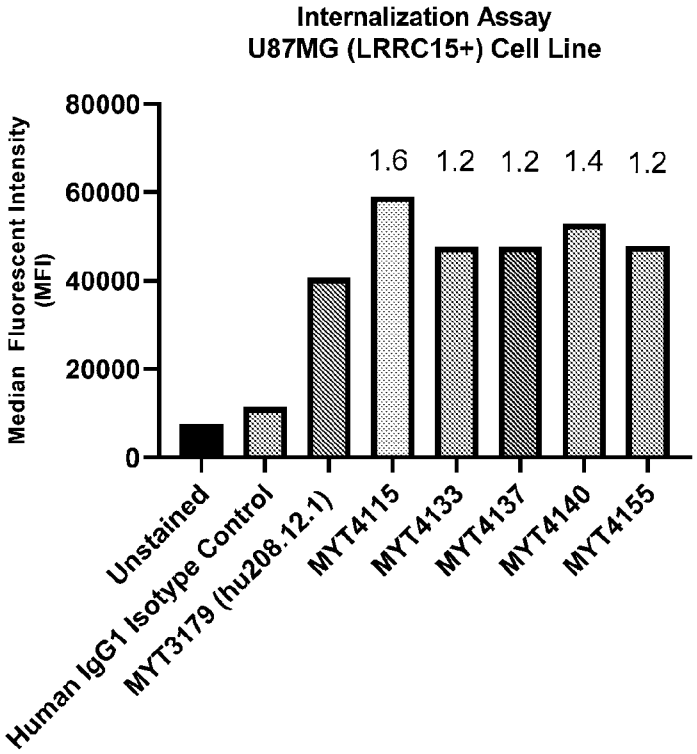

Internalization Assay
U87MG (LRRC15+) Cell Line
Median Fluorescent Intensity (MFI)
80000
60000
40000
20000
0
1.6
1.2
1.2
1.4
1.2
Unstained
Human IgG1 Isotype Control
MYT3179 (hu208.12.1)
MYT4115
MYT4133
MYT4137
MYT4140
MYT4155

FIG. 41F

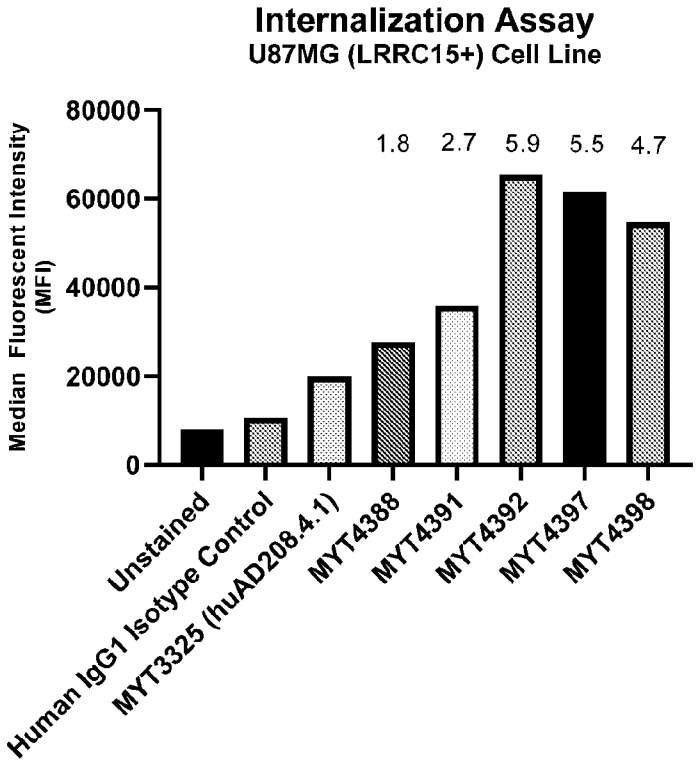

Internalization Assay
U87MG (LRRC15+) Cell Line
Median Fluorescent Intensity (MFI)
80000
60000
40000
20000
0
1.8
2.7
5.9
5.5
4.7
Unstained
Human IgG1 Isotype Control
MYT3325 (huAD208.4.1)
MYT4388
MYT4391
MYT4392
MYT4397
MYT4398

FIG. 41G

	Tm 1 (°C)	Tm 2 (°C)
MYT0963 (samrotamab)	70.4	77.8
MYT0971	70.6	76.2

FIG. 42

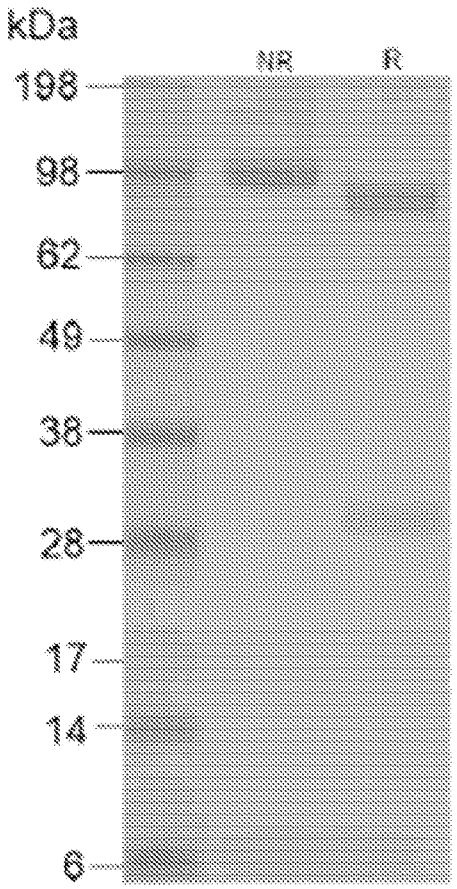


FIG. 43

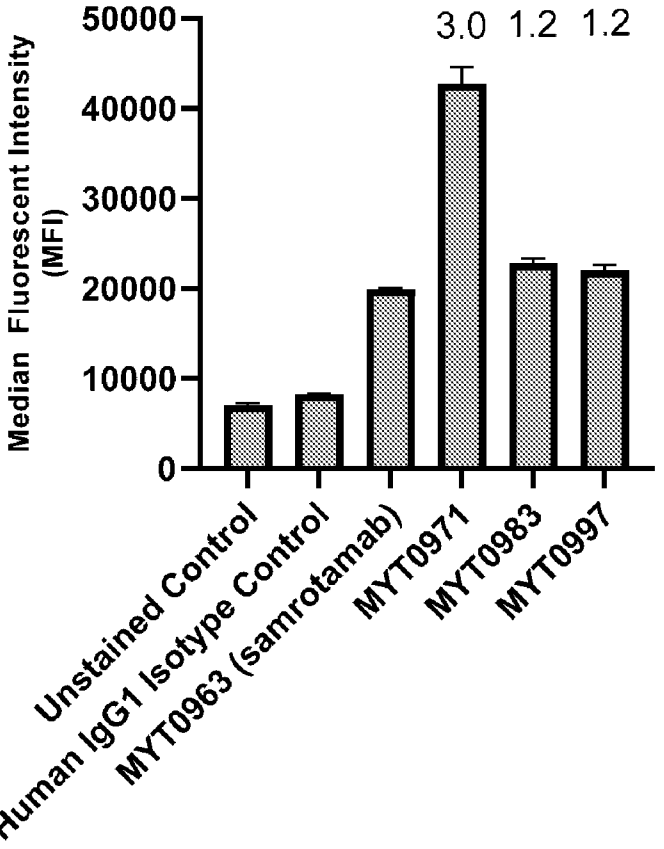

Internalization Assay
U-87-MG (LRRC15+) Cell Line
Error bars = SD
Median Fluorescent Intensity (MFI)
50000
40000
30000
20000
10000
0
3.0
1.2
1.2
Unstained Control
Human IgG1 Isotype Control
MYT0963 (samrotamab)
MYT0971
MYT0983
MYT0997

FIG. 41A