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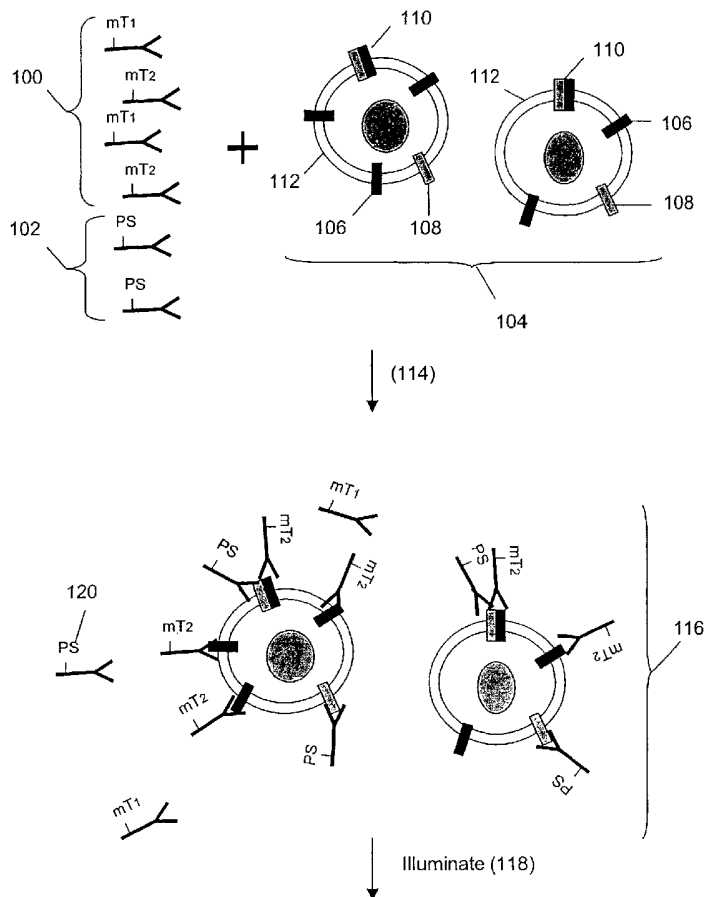
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(54) Title: DETECTING RECEPTOR OLIGOMERIZATION



(57) Abstract: Methods are provided for detecting formation of oligomeric complexes of molecules on the surface of cell membranes. These methods employ pairs of tagged probes and cleaving probes, each of which binds specifically to a cell surface molecule. The tagged probe includes a molecular tag that is linked to a first binding compound through a cleavable linkage, and the cleaving probe includes a second binding agent and a cleavage-inducing moiety that can cleave the linkage when within a defined proximity thereto. Binding of the two probes to cell surface molecules that have formed an oligomeric complex results in release of the molecular tag from the binding compound, providing a measure of formation of the complex.



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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/22611

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : GOIN 33/566, 33/543

US CL : 436/518; 435/6, 7, 7.1

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 436/518; 435/6, 7, 7.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Medline, Caplus, Biosis

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category *    | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No.                          |
|---------------|--|--|
| X<br>---<br>Y | US 4,650,750 (GIESE) 17 March 1987 (17.03.1987), see the abstract, summary, and columns 4-9.   | 1-5, 7, 15, 19,<br>-----<br>8-10, 16-18, 20-27 |
| X<br>---<br>Y | US 5,610,020 A (GIESE et al) 11 March 1997 (11.03.1997), see entire document, especially column 4.   | 1-5, 7, 15, 19,<br>-----<br>8-10, 16-18, 20-27 |
| Y             | US 5,677,171 A (HUDZIAK et al) 14 October 1997 (14.10.1997), see abstract, summary, and column 8.  | 6, 11-14, 28-30                                |
| A             | US 5,516,636 A (MCAPRA) 14 May 1996 (14.05.1996), see entire document.   | 1-30   |
| A             | HAFF et al. Multiplex genotyping of PCR products with Mass Tag-labeled primers, Nucleic Acids Research, 1997, Vol. 25, No. 18, pages 3749-3750, see entire document. | 1-30   |



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