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CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,
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KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,
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SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR,
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TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,
LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK,

[Continued on next page]

(54) Title: INHIBITION-BASED HIGH-THROUGHPUT SCREEN STRATEGY FOR CELL CLONES

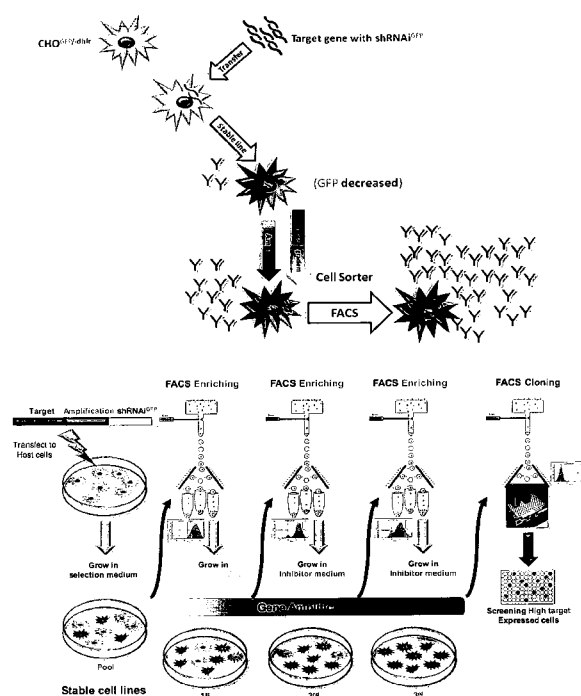


FIG. 1

(57) Abstract: A method for screening cells with high level expression of a target protein is disclosed. The method includes introducing into a plurality of host cells a DNA construct that encodes both a target protein and an inhibitor to an endogenous selectable marker in the host cells, screening host cells harboring the DNA construct for the expression of the endogenous selectable marker, and isolating cells with reduced expression of the selectable marker. Also disclosed is a DNA construct configured to express both the target protein and the inhibitor inside the host cell.



SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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A. CLASSIFICATION OF SUBJECT MATTER*C12Q 1/68(2006.01)i, C12N 15/63(2006.01)i, C12N 15/113(2010.01)i*

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)

C12Q 1/68; C07K 19/00; A01K 67/027; C12N 15/85; C12P 21/06

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

NCBI PubMed, eKOMPASS (KIPO internal), 'internal ribosome entry site (IRES), expression, endogenous selectable marker, fluorescent protein, inhibitor, dna construct, vector, transgene expressing cell, etc.'

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1760092 A1 (Applied Research Systems ARS Holding N.V.) 7 March 2007 - see the whole document, especially Claims 1, 11-19, 22-31; Abstract	1-20
A	US 2004/0038392 A1 (Shibui, Tatsurou et al.) 26 February 2004 - see the whole document, especially Claims 1-3, 13-15; Abstract	1-20
A	US 2005/0266552 A1 (Doench, John G. et al.) 1 December 2005 - see the whole document, especially Claims 1-17, 33, 52, 79, 85; Abstract	1-20
A	US 5256568 A (Panayotatos, Nikos) 26 October 1993 - see the whole document, especially Claims 1-5, 15, 39; Abstract	1-20
A	US 2004/0148647 A1 (ENENKEL, BARBARA et al.) 29 July 2004 - see the whole document, especially Claims 1-7, 16, 23, 24; Abstract	1-20



Further documents are listed in the continuation of Box C.



See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1760092 A1	07.03.2007	AU 2006-283844 A1 CA 2618203 A1 EP 1919958 A1 IL 189739D0 JP 2009-505647 A JP 2009-505647 T US 2008-0286824 A1 WO 2007-023184 A1 WO 2007-023184 A1	01.03.2007 01.03.2007 14.05.2008 07.08.2008 12.02.2009 12.02.2009 20.11.2008 01.03.2007 01.03.2007
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