(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
31 January 2002 (31.01.2002)

PCT

(10) International Publication Number
WO 02/08447 A2

(51) International Patent Classification[7]: C12Q

(21) International Application Number: PCT/IL01/00669

(22) International Filing Date: 20 July 2001 (20.07.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/220,248 24 July 2000 (24.07.2000) US

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(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *without international search report and to be republished upon receipt of that report*
— *entirely in electronic form (except for this front page) and available upon request from the International Bureau*

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(54) Title: NUCLEIC ACIDS AND METHODS FOR DETECTING VIRAL INFECTION, UNCOVERING ANTI-VIRAL DRUG CANDIDATES AND DETERMINING DRUG RESISTANCE OF VIRAL ISOLATES

(57) Abstract: A nucleic acid construct is provided. The nucleic acid construct includes (a) an expression cassette including: (i) a first polynucleotide region including a 5' NCR sequence of an RNA virus and at least an N-terminal portion of a core sequence of the RNA virus; (ii) a second polynucleotide region including a 3' UTR sequence of the RNA virus and at least a C-terminal portion of a polymerase sequence of the virus; and (iii) a third polynucleotide region encoding a reporter molecule, the third polynucleotide region being flanked by the first and the second polynucleotide regions; and (b) a promoter sequence being operatively linked to the expression cassette in a manner so as to enable a transcription of a minus strand RNA molecule from the expression cassette.