CORRECTED VERSION*

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 :
C12N 15/12, 1/21, 5/10, C07K 14/705, A61K 39/21, 39/12, 38/17, 39/39

A3

(11) International Publication Number: WO 99/57271

(43) International Publication Date: 11 November 1999 (11.11.99)

(21) International Application Number: PCT/US99/09502

(22) International Filing Date: 30 April 1999 (30.04.99)

(30) Priority Data:
09/071,699 1 May 1998 (01.05.98) US

(71) Applicant: THE TEXAS A & M SYSTEM [US/US]; College Station, TX 77843-4467 (US).

(72) Inventors: COLLISON, Ellen, W.; 2503 Broadmore Drive, Bryan, TX 77803 (US). HASH, Stephen, M.; Apartment B-3, 1000 Smith Level Road, Carlboro, NC 27510 (US). CHOI, InSou; Apartment 1703, 2500 Central Park Lane, College Station, TX 77840 (US).

(74) Agent: WHITE, John, P.; Cooper & Dunham LLP, 1185 Avenue of the Americas, New York, NY 10036 (US).

(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, 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, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, 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), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.

(88) Date of publication of the international search report:
2 March 2000 (02.03.00)

(54) Title: FELINE CD80, FELINE CD86, FELINE CD28, AND FELINE CTLA-4 NUCLEIC ACID AND POLYPEPTIDES

(57) Abstract

The present invention provides isolated and purified DNA encoding feline CD80 (B7-1) ligand, feline CD86 (B7-2) ligand, feline CD28 receptor, or feline CTLA-4 (CD152) receptor, as well as vectors comprising nucleic acid encoding feline CD80, feline CD86, feline CD28, or feline CTLA-4. The present invention provides host cells transformed with CD80-encoding vectors, CD86-encoding vectors, CD28-encoding vectors, or CTLA-4-encoding vectors. The invention provides polypeptides encoded by the nucleic acid of feline CD80, feline CD86, feline CD28, or feline CTLA-4. The present invention provides a vaccine comprising an effective amount of polypeptides encoded by the nucleic acid of feline CD80, feline CD86, feline CD28, or feline CTLA-4. The present invention also provides vaccines which further comprise immunogens derived from pathogens. The invention provides for vaccines capable of enhancing an immune response. The invention also provides for vaccines capable of suppressing an immune response.

*(Referred to in PCT Gazette No. 17/2000, Section II)