

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
21 October 2021 (21.10.2021)



(10) International Publication Number
WO 2021/207801 A1

(51) International Patent Classification:

A61K 35/17 (2015.01) *C07K 16/28* (2006.01)
A61P 35/00 (2006.01) *C12N 5/0783* (2010.01)
A61P 37/00 (2006.01) *G01N 33/569* (2006.01)

(21) International Application Number:

PCT/AU2021/050347

(22) International Filing Date:

19 April 2021 (19.04.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2020901217 17 April 2020 (17.04.2020) AU

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(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW,

(54) Title: IMMUNE CELLS WITH ENHANCED FUNCTION

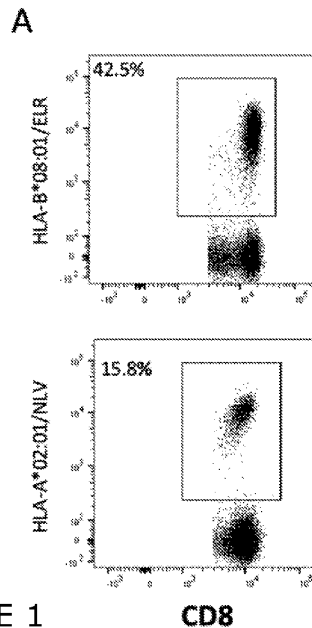


FIGURE 1

CD8

(57) **Abstract:** Disclosed are T-cells that are positive for CD49f and which have an enhanced function compared to CD49f⁻ cells. Methods of isolation of CD49f⁺ T-cells, as well as compositions and kits thereof are also disclosed. Additionally, enriched CD49f⁺ T-cell populations have an increased proliferative potential, long-term survival and significantly improved efficacy in an adoptive therapeutic setting. The CD49f⁺ T-cells and CD49f⁺ T-cell enriched T-cell populations are useful in a range of applications, including for use in treating or inhibiting the development of diseases with immune dysfunction and methods of assessing risk of disease and potential responsiveness in immunotherapy. CD 19 CAR-T cells derived from CD49f⁺ T-cells and their use in a method of treatment of cancer is also disclosed.

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SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))