

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
28 July 2022 (28.07.2022)



(10) International Publication Number
WO 2022/159771 A1

(51) International Patent Classification:

A61P 35/00 (2006.01) *C07K 14/715* (2006.01)
C07K 14/54 (2006.01) *C07K 16/28* (2006.01)
C07K 14/55 (2006.01) *A61K 39/00* (2006.01)

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).

(21) International Application Number:

PCT/US2022/013417

Published:

- with international search report (Art. 21(3))
- with sequence listing part of description (Rule 5.2(a))

(22) International Filing Date:

21 January 2022 (21.01.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/140,749 22 January 2021 (22.01.2021) US

(71) Applicant: **ELPIS BIOPHARMACEUTICALS**

[US/US]; 128 Spring Street, Building B, Lexington, Mass-
achusetts 02421 (US).

(72) Inventors: **ZHAO, Kehao**; 128 Spring Street, Building

B, Lexington, Massachusetts 02421 (US). **CHEN, Yan**;

128 Spring Street, Building B, Lexington, Massachusetts

02421 (US). **HASSAN, Samuel Clement**; 128 Spring

Street, Building B, Lexington, Massachusetts 02421 (US).

NGUYEN, Jenna; 128 Spring Street, Building B, Lexing-

ton, Massachusetts 02421 (US). **JIANG, Ning**; 128 Spring

Street, Building B, Lexington, Massachusetts 02421 (US).

(74) Agent: **O'BRIEN, Daniel** et al.; Seed Intellectual Proper-

ty Law Group LLP, Suite 5400, 701 Fifth Avenue, Seattle,

Washington 98104-7064 (US).

(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,

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,

(54) Title: ANTI-PD-L1 MONOCLONAL ANTIBODIES AND FUSION PROTEINS WITH INTERLEUKIN-15 (IL-15), INTER-
LEUKIN-15 RECEPTOR 15 ALPHA OR INTERLEUKIN-2

(57) Abstract: The instant disclosure provides proteins with antibody heavy chain variable domains and light chain variable domains that can be paired to form antigen-binding sites that specifically bind to PD-L1. In certain embodiments, the proteins or antigen-binding sites form antibody or bispecific antibody, such as, for example, PD-L1/IL-2R β bispecific antibody. Also provided are pharmaceutical compositions comprising such proteins, therapeutic methods for using such proteins, and pharmaceutical compositions thereof, including for the treatment of cancer.

WO 2022/159771 A1