

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
07 September 2023 (07.09.2023)



(10) International Publication Number
WO 2023/168429 A3

(51) International Patent Classification:
A61K 39/395 (2006.01) **C07K 16/40** (2006.01)

(21) International Application Number:
PCT/US2023/063713

(22) International Filing Date:
03 March 2023 (03.03.2023)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/316,927 04 March 2022 (04.03.2022) US

(71) Applicant: **COAGULANT THERAPEUTICS CORPORATION** [KR/KR]; Seoul BioHub, 402 Research Bldg., 117-3 Hoegi-ro, Dongdaemun-gu, 02455 (KR).

(72) Inventor; and

(71) Applicant (for RU only): **HERMISTON, Terry** [US/US]; 305 E. Strawberry Drive, Mill Valley, CA 94941 (US).

(72) Inventors: **BAUZON, Maxine**; 1033 Park Street, Hercules, CA 94547 (US). **SIM, Derek**; 1722 Quesada Way, Burlingame, CA 94010 (US). **SCHNEIDER, Douglas, W.**; 3329 Walnut Lane, Lafayette, CA 94549 (US).

(74) Agent: **HANSEN, Christine, M.**; Quarles & Brady LLP, 135 N. Pennsylvania St., #2400, Attn: IP Docket, Indianapolis, IN 46204 (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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, 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, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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).

(54) Title: CAMELID ANTIBODIES AGAINST ACTIVATED PROTEIN C AND USES THEREOF

(57) Abstract: The present invention provides antibodies against activated protein C (APC) Certain disclosed antibodies inhibit the anticoagulant activity of APC while preserving its beneficial cytoprotective functions. The present invention also provides nucleic acids, vectors, and host cells for producing the antibodies disclosed herein, as well as methods of using the antibodies to treat medical conditions such as bleeding, sepsis, and inflammation.

			APC binding (nm)	TPP-4885 Fab binding (nm)
Nanobodies	Nanobodies Not Blocking TPP-4885 Fab Binding	Buffer	0.06	0.03
		LP2	0.29	0.15
		LP3	0.29	0.16
		LP7	0.34	0.08
		LP9	0.33	0.18
		LP10	0.29	0.15
		LP11	0.30	0.16
		LP12	0.31	0.18
		LP18	0.29	0.16
	Nanobodies Blocking TPP-4885 Fab Binding	LP1	0.32	-0.03
		LP4	0.33	-0.03
		LP5	0.33	-0.03
		LP6	0.31	-0.03
		LP8	0.32	-0.02
		LP13	0.32	-0.09
		LP14	0.31	-0.02
		LP15	0.31	-0.05
		LP16	0.29	-0.03
		LP17	0.30	-0.00
		LP19	0.31	-0.02
		LP20	0.30	-0.01
		LP21	0.31	-0.03

Cluster
1

FIG. 1A

WO 2023/168429 A3

[Continued on next page]

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*
- *with sequence listing part of description (Rule 5.2(a))*

(88) Date of publication of the international search report:

16 November 2023 (16.11.2023)