

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
09 March 2023 (09.03.2023)



(10) International Publication Number
WO 2023/031397 A1

(51) International Patent Classification:

C07K 16/24 (2006.01) *A61P 37/06* (2006.01)
C07K 16/44 (2006.01) *A61P 35/00* (2006.01)
C07K 16/46 (2006.01) *A61P 13/12* (2006.01)
A61K 39/395 (2006.01) *A61K 49/00* (2006.01)
A61K 31/00 (2006.01) *A61K 51/04* (2006.01)

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))

(21) International Application Number:

PCT/EP2022/074449

(22) International Filing Date:

02 September 2022 (02.09.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

21194701.5 03 September 2021 (03.09.2021) EP
21204108.1 22 October 2021 (22.10.2021) EP
22155394.4 07 February 2022 (07.02.2022) EP

(71) Applicant: **ONCOONE RESEARCH & DEVELOPMENT GMBH** [AT/AT]; Höhenstraße 19/2, 3400 Klosterneuburg (AT).

(72) Inventors: **SCHINAGL, Alexander**; Pappenheimgasse 37/36, 1200 Vienna (AT). **KERSCHBAUMER, Randolph**; Höhenstraße 19/1, 3400 Klosterneuburg (AT). **THIELE, Michael Robert**; Fasangasse 1-5/15, 2201 Seyring (AT).

(74) Agent: **LOIDL, Manuela** et al.; Donau-City-Strasse 11, 1220 Vienna (AT).

(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, 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, 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).

(54) Title: IMPROVED Fc SILENCED ANTI- α MIF ANTIBODIES WITH REDUCED AGGREGATION POTENTIAL AND REDUCED HYDROPHOBICITY

(57) Abstract: The invention refers to Fc silenced anti- α MIF antibodies with improved properties such as reduced aggregation potential and reduced hydrophobicity due to selected amino acid substitutions in the light and heavy chain variable domains, and their use in the treatment of α MIF-related conditions.

