

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

(19) World Intellectual Property
Organization
International Bureau



(10) International Publication Number
WO 2023/281432 A1

(43) International Publication Date
12 January 2023 (12.01.2023)

(51) International Patent Classification:

A61K 9/08 (2006.01) *A61K 47/26* (2006.01)
A61J 1/05 (2006.01) *A61K 38/16* (2006.01)
A61K 47/18 (2017.01) *A61K 9/19* (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/IB2022/056276

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))
- in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE

(22) International Filing Date:

07 July 2022 (07.07.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

202121030619 08 July 2021 (08.07.2021) IN

(71) Applicant: UNICHEM LABORATORIES LTD [IN/IN];
Unichem Bhavan, Prabhat Estate Off. S. V. Road, Jogeshwari (W) Mumbai, Maharashtra 400102 (IN).

(72) Inventors: SATHE, Dhananjay; 202/A-1, Golden Park, L.B.S. Marg, Panchpakhadi, Thane, Maharashtra 400601 (IN). MISHRA, Vivek; 363/3, Vasant Vihar Colony, Shivaji Ward, Tilli Road, Sagar, Madhya Pradesh 470001 (IN). IYAPPAN, Saravanakumar; 1-6-39/108/1, Dinakar Nagar, West Venkatapuram, Alwal, Hyderabad, Telangana 500015 (IN). JOG, Sunil; 7/94, Jai Hanuman Society, Paranjpe B Scheme Road No. 2, Vile Parle East, Mumbai, Maharashtra 400057 (IN).

(74) Agent: KHURANA & KHURANA, ADVOCATES & IP ATTORNEYS; E-13, UPSIDC, Site-IV, Behind-Grand Venice, Kasna Road, Greater Noida, National Capital Region, Uttar Pradesh 201310 (IN).

(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,

(54) Title: RECOMBINANT PROTEINS, COMPOSITIONS AND METHODS OF STABILIZATION THEREOF

(57) Abstract: The present invention relates to recombinant proteins, compositions and methods of stabilization thereof. The invention specifically relates to the stable recombinant protein of SEQ ID NO: 1 and composition comprising recombinant protein of SEQ ID NO: 1. The invention further relates to method of preparing, storing and stabilizing recombinant protein of SEQ ID NO: 1 and its composition for longer shelf life.

WO 2023/281432 A1