



(51) International Patent Classification:

C07K 1/22 (2006.01) C07K 14/315 (2006.01)

C07K 14/31 (2006.01) C07K 16/00 (2006.01)

(21) International Application Number:

PCT/EP2021/069564

(22) International Filing Date:

14 July 2021 (14.07.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

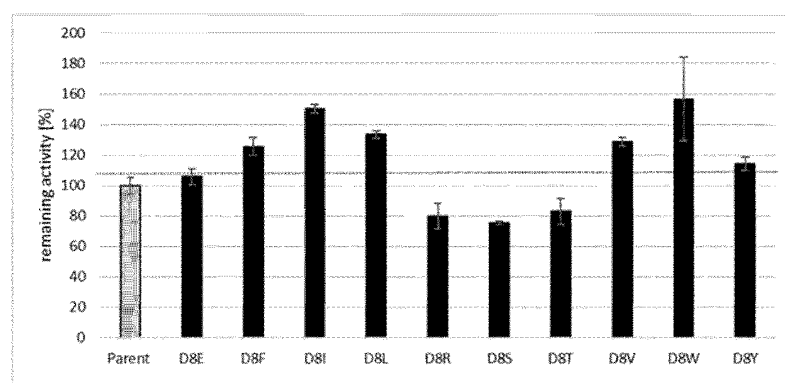
20186024.4 15 July 2020 (15.07.2020) EP

21158714.2 23 February 2021 (23.02.2021) EP

(71) Applicant: NAVIGO PROTEINS GMBH [DE/DE];
Heinrich-Damerow-Str. 1, 06120 Halle/Saale (DE).(72) Inventors: KNICK, Paul; Navigo Proteins GmbH,
Heinrich-Damerow-Str. 1, 06120 Halle/Saale (DE).
BOBOLOWSKI, Hanna; Navigo Proteins GmbH, Hein-
rich-Damerow-Str. 1, 06120 Halle/Saale (DE). KAHL,
Mathias; Navigo Proteins GmbH, Heinrich-Damerow-Str.
1, 06120 Halle/Saale (DE). FIEDLER, Erik; Navigo Pro-
teins GmbH, Heinrich-Damerow-Str. 1, 06120 Halle/Saale(DE). HAUPTS, Ulrich; Navigo Proteins GmbH, Hein-
rich-Damerow-Str. 1, 06120 Halle/Saale (DE).(74) Agent: HAUCKE, Kerstin; Heinrich-Damerow-Str. 1,
06120 Halle/Saale (DE).(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,
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,

(54) Title: IMMUNOGLOBULIN BINDING PROTEINS FOR AFFINITY PURIFICATION

FIGURE 2. Remaining activity after NaOH incubation (pos. 8 modifications)



(57) Abstract: The present invention relates to immunoglobulin (Ig) binding proteins comprising one or more domains having highly hydrophobic amino acids with branched side chains (Iso, Leu, Val), or aromatic amino acids (Tyr, Phe, or Trp) corresponding to position 4 or 6 or 8 of the Ig binding protein of SEQ ID NO: 1 or functionally similar proteins. The novel proteins have superior properties for highly efficient purification methods for antibodies (immunoglobulins), for example, the proteins have high binding capacity and high chemical stability. The invention further relates to affinity matrices comprising the Ig binding proteins of the invention. The invention also relates to a use of these Ig binding proteins or affinity matrices for affinity purification of immunoglobulins and to methods of affinity purification using the Ig binding proteins of the invention.

[Continued on next page]

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))*
- *with sequence listing part of description (Rule 5.2(a))*