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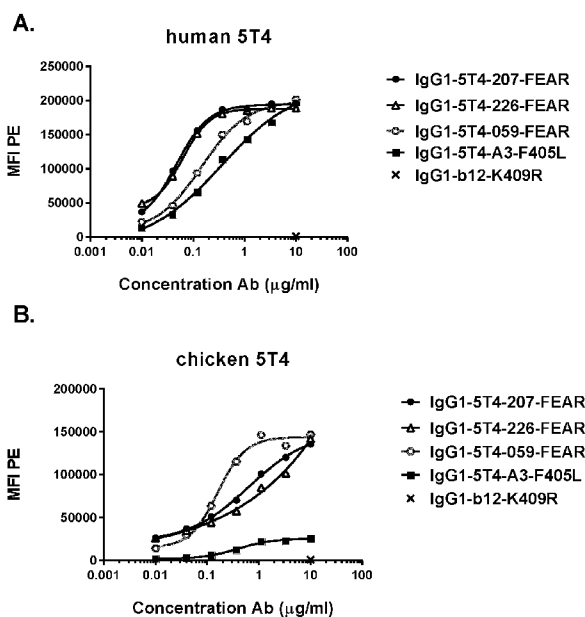
GELBERTS, Patrick; c/o Genmab B.V. Uppsalalaan 15, 3584 CT Utrecht (NL). VAN DEN BRINK, Edward,N.; c/o Genmab B.V. Uppsalalaan 15, 3584 CT Utrecht (NL). RADEMAKER, Rik; c/o Genmab B.V. Uppsalalaan 15, 3584 CT Utrecht (NL). VERZIJJ, Dennis; c/o Genmab B.V. Uppsalalaan 15, 3584 CT Utrecht (NL). HORBACH, Sjeng; Polderkade 1, 5345 RR Oss (NL). PARREN, Paul; Werdorperwaard 17, 3984 PR Odijk (NL).

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(54) Title: ANTIBODIES

Figure 3



(57) **Abstract:** The present invention relates to antibodies binding to 5T4, including bispecific antibodies binding to 5T4 and CD3. The invention further provides pharmaceutical compositions comprising the antibodies and use of the antibodies for therapeutic and diagnostic procedures, in particular in cancer therapy.



(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).

Published:

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14 November 2019 (14.11.2019)

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2019/056197

A. CLASSIFICATION OF SUBJECT MATTER INV. C07K16/10 C07K16/28 C07K16/30 A61K47/68 ADD.																				
According to International Patent Classification (IPC) or to both national classification and IPC																				
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) C07K A61K Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal, BIOSIS, EMBASE, WPI Data																				
C. DOCUMENTS CONSIDERED TO BE RELEVANT <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>WO 2015/155345 A1 (MEDIMMUNE LTD [GB]) 15 October 2015 (2015-10-15) figures 3-10; examples 1-3 -----</td> <td>1-133</td> </tr> <tr> <td>A</td> <td>WO 2017/182672 A1 (ALLIGATOR BIOSCIENCE AB [SE]) 26 October 2017 (2017-10-26) examples 1-4 page 74, line 17 - line 18 -----</td> <td>1-133</td> </tr> <tr> <td>A</td> <td>WO 2016/022939 A1 (US HEALTH [US]) 11 February 2016 (2016-02-11) example 1 -----</td> <td>1-133</td> </tr> <tr> <td>A</td> <td>WO 2007/106744 A2 (WYETH CORP [US]; BOGHAERT ERWIN R [US]; DAMLE NITIN K [US]; HAMANN PHI) 20 September 2007 (2007-09-20) cited in the application examples; table 15 -----</td> <td>1-133</td> </tr> <tr> <td colspan="2" style="text-align: center;">-/-</td> <td></td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	A	WO 2015/155345 A1 (MEDIMMUNE LTD [GB]) 15 October 2015 (2015-10-15) figures 3-10; examples 1-3 -----	1-133	A	WO 2017/182672 A1 (ALLIGATOR BIOSCIENCE AB [SE]) 26 October 2017 (2017-10-26) examples 1-4 page 74, line 17 - line 18 -----	1-133	A	WO 2016/022939 A1 (US HEALTH [US]) 11 February 2016 (2016-02-11) example 1 -----	1-133	A	WO 2007/106744 A2 (WYETH CORP [US]; BOGHAERT ERWIN R [US]; DAMLE NITIN K [US]; HAMANN PHI) 20 September 2007 (2007-09-20) cited in the application examples; table 15 -----	1-133	-/-		
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☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.																				
* Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family																				
Date of the actual completion of the international search		Date of mailing of the international search report																		
2 August 2019		16/10/2019																		
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016		Authorized officer																		
		Loubradou, Gabriel																		

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2019/056197

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-133(partially)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2019/056197

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2017/089447 A1 (SYNTHON BIOPHARMACEUTICALS BV [NL]) 1 June 2017 (2017-06-01) examples	1-133
A	----- WO 2017/072207 A1 (F HOFFMANN-LA ROCHE AG [CH]; HOFFMANN-LA ROCHE INC [US]) 4 May 2017 (2017-05-04) cited in the application examples; table 2	1-133
A	----- WO 2017/107973 A1 (XDCEXPLORER CO LTD [CN]) 29 June 2017 (2017-06-29) examples; table 8	1-133
A	----- WO 2013/041687 A1 (AMGEN RES MUNICH GMBH [DE]; KUFER PETER [DE]) 28 March 2013 (2013-03-28) cited in the application examples	1-133
A	----- GERSHONI JONATHAN M ET AL: "Epitope mapping - The first step in developing epitope-based vaccines", BIODRUGS, ADIS INTERNATIONAL LTD, NZ, vol. 21, no. 3, 1 January 2007 (2007-01-01), pages 145-156, XP009103541, ISSN: 1173-8804, DOI: 10.2165/00063030-200721030-00002 the whole document	1-133
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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-133(partially)

Subject-matter of claims 1 to 133 wherein the antibody has CDR sequences according to claim 52 (a) (f) or (g).

2. claims: 1-133(partially)

Subject-matter of claims 1 to 133 wherein the antibody has CDR sequences according to claim 52 (b).

3. claims: 1-133(partially)

Subject-matter of claims 1 to 133 wherein the antibody has CDR sequences according to claim 52 (c).

4. claims: 1-133(partially)

Subject-matter of claims 1 to 133 wherein the antibody has CDR sequences according to claim 52 (d).

5. claims: 1-133(partially)

Subject-matter of claims 1 to 133 wherein the antibody has CDR sequences according to claim 52 (e).

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2019/056197

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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