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THE INTERNATIONAL IMMUNOGENETICS INFORMATION SYSTEM®

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mAb-DB
Database contains 1070 entries
913 -IG
35 -FPIA
53 -CPCA
53 -RPI

IMGT/mAb-DB result

Version: 1.5.12 (2020-10-28)

Citing IMGT/mAb-DB:
Poiron C., Wu Y., Ginestoux C., Ehrenmann, Duroux P. and Lefranc M-P. IMGT/mAb-DB: the IMGT® database for therapeutic monoclonal antibodies. JOBIM 2010, Paper 13 (2010). Abstract PDF

Your query: specificity target name = CD274, specificity target species = Homo sapiens (human)

Number of results: 13

IMGT/mAb-DB ID	INN (International Nonproprietary Name)	INN Num.	INN Prop. list	INN Rec. list	Common name	Proprietary name	Species	IMGT receptor type	Format	Receptor identification	Radiolabelled/ Conjugated/ Fused	IMGT/2Dstructure-DB	IMGT/3Dstructure-DB	Specificity target name [species]	Development Technology	Origin clone species	Origin clone name	Company	Application	Clinical indication	Development status	Regulatory agency status and year	Expression system	Clinical domain	Clinical trials	Authority decisions	External links	Citations/ Notes/ References	Biosimilars
999	adebrelimab	11300	122 (2019)	84 (2020)	HTI-1088, SHR-1316		Chimeric Humanized	IG		IgG4 - kappa		11300		CD274 (programmed cell death 1 ligand 1, B7H1, B7-H1, PDL1, PD-L1, PDCD1L1, B7 homolog 1, B7 homologue 1) [*Homo sapiens*]				Jiangsu Hengrui Medicine Co. Ltd. (Lianyungang Jiangsu China)	Therapeutic	Solid tumors	Phase I			Oncology	10 studies found. 8 recruiting				
																			Therapeutic	Carcinoma, esophageal	Phase II		CHO (Chinese Hamster Ovary) cells	Oncology					
526	atezolizumab	9814	112 (2014)	74 (2015)	MPDL3280A, RG7446	TECENTRIQ®	Humanized	IG		IgG1 - kappa		9814	5x8l	CD274 (programmed cell death 1 ligand 1, B7H1, B7-H1, PDL1, PD-L1, PDCD1L1, B7 homolog 1, B7 homologue 1) [*Homo sapiens*]	No glycosylation site CH2 N84.4>A, Antibody phage display library			Roche. F. Hoffmann-La Roche Ltd. (Basel Switzerland) / Genentech Inc. (S. San Francisco CA USA)	Therapeutic	Cancers, breast	Phase III			Oncology	470 studies found. 286 recruiting	FDA: (BLA) 761041 FDA: (BLA) 761034		(1) (2) (3)	
																			Therapeutic	Cancers, non-small cell lung (NSCLC)	Phase M	FDA approval October 18, 2016		Oncology					
																			Therapeutic	Cancers, renal	Phase I			Oncology					
																			Therapeutic	Cancers, small cell lung (SCLC)	Phase III	Orphan drug (FDA designation) October 13, 2016		Oncology					
																			Therapeutic	Melanoma (stage IIb, IIc, III and IV)	Phase I	Orphan drug (FDA designation) February 13, 2017; Orphan drug (FDA designation (in combination with cobimetinib) February 13, 2017		Oncology					
																			Therapeutic	Solid tumors	Phase II			Oncology					
																			Therapeutic	Cancers, bladder	Phase III			Oncology					
																			Therapeutic	Renal cell carcinoma (RCC)	Phase III			Oncology					
																			Therapeutic	Hepatocellular carcinoma (HCC) (in combination with bevacizumab)	Phase III	FDA Orphan drug (FDA designation) January 08, 2018		Oncology					
																			Therapeutic	Carcinoma, bladder cancer, advanced or metastatic urothelial cancers	Phase M	FDA approval May 18, 2016		Oncology					
																			Therapeutic	Carcinoma, urothelial	Phase III			Oncology					
512	avelumab	10062	113 (2015)	76 (2016)	MSB-0010718C, MSB0010682, MSB0010718C	BAVENCIO®	*Homo sapiens*	IG		IgG1 - lambda		10062		CD274 (programmed cell death 1 ligand 1, B7H1, B7-H1, PDL1, PD-L1, PDCD1L1, B7 homolog 1, B7 homologue 1) [*Homo*	Human antibody phage display library			Merck Serono International S.A. (Geneva Switzerland)	Therapeutic	Renal Cell Carcinoma (RCC), advanced				Oncology	211 studies found. 106 recruiting	FDA: (BLA) 761049		(4) (5)	
																		Merck Serono International S.A. (Geneva Switzerland) / Pfizer (New York NY USA)	Therapeutic	Cancers, ovarian	Phase III			Oncology					
																			Therapeutic	Cancers, gastric	Phase III	Orphan drug (EMA designation) December 12, 2016		Oncology					

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														sapiens]					Therapeutic	Cancers, non-small cell lung (NSCLC), metastatic	Phase III		CHO (Chinese Hamster Ovary) cells	Oncology						
																			Therapeutic	Solid tumors	Phase I			Oncology						
																			Therapeutic	Merkel cell carcinoma (MCC), metastatic	Phase M	FDA approval March 23, 2017		Oncology						
																		Pfizer (New York NY USA)	Therapeutic	Renal Cell Carcinoma (RCC), advanced	Phase M	FDA approval (in combination with axitinib) May 14, 2019		Oncology					
869	bintrafusp alfa	10665	119 (2018)	81 (2019)	M7824		*Homo sapiens*	IG		IgG1 - lambda	fused with *Homo sapiens* TGFBR2 (transforming growth factor beta receptor 2) (1:2) via a peptidyl linker	10665		CD274 (programmed cell death 1 ligand 1, B7H1, B7-H1, PDL1, PD-L1, PDCD1L1, B7 homolog 1, B7 homologue 1) [*Homo sapiens*]				Merck & Co., Inc. (Whitehouse Station NJ USA)	Therapeutic	Solid tumors	Phase I		CHO (Chinese Hamster Ovary) cells	Oncology	38 studies found, 32 recruiting			(5) (6)	
946	cosibelimab	11107	121 (2019)	83 (2020)	CK-301		*Homo sapiens*	IG		IgG1 - lambda		11107		CD274 (programmed cell death 1 ligand 1, B7H1, B7-H1, PDL1, PD-L1, PDCD1L1, B7 homolog 1, B7 homologue 1) [*Homo sapiens*]				Checkpoint Therapeutics (NY USA)	Therapeutic	Cancers	Phase I		CHO (Chinese Hamster Ovary) cells	Oncology	1 studies found, 1 recruiting				
528	durvalumab	10010	112 (2014)	74 (2015)	MEDI4736	IMFINZI™	*Homo sapiens*	IG		IgG1 - kappa		10010		CD274 (programmed cell death 1 ligand 1, B7H1, B7-H1, PDL1, PD-L1, PDCD1L1, B7 homolog 1, B7 homologue 1) [*Homo sapiens*]	Abgenix's XenoMouse®			MedImmune (Gaithersburg MD USA) / AstraZeneca (London UK)	Therapeutic	Cancers, non-small cell lung (NSCLC)	Phase III			Oncology	482 studies found, 291 recruiting	FDA: (BLA) 761069		(7)	
																			Therapeutic	Cancers, small cell lung (SCLC)	Phase I	FDA Orphan drug (FDA designation) July 10, 2019		Oncology					
																			Therapeutic	Solid tumors	Phase I			Oncology					
																			Therapeutic	Cancers, bladder	Phase III			Oncology					
																			Therapeutic	Cancers, urothelial	Phase M	FDA approval May 01, 2017		Oncology					
934	envafolimab	10930	120 (2018)	82 (2019)	KN-035		Chimeric	IG		(VH - CH2 - CH3)2				CD274 (programmed cell death 1 ligand 1, B7H1, B7-H1, PDL1, PD-L1, PDCD1L1, B7 homolog 1, B7 homologue 1) [*Homo sapiens*]				Alphamab Co. Ltd (Suzhou China)	Therapeutic	Solid tumors	Phase I		CHO (Chinese Hamster Ovary) cells	Oncology	10 studies found, 7 recruiting				
1079	garivulimab	11451	123 (2020)		BGB-A333		Humanized	IG		IgG1 - kappa				CD274 (programmed cell death 1 ligand 1, B7H1, B7-H1, PDL1, PD-L1, PDCD1L1, B7 homolog 1, B7 homologue 1) [*Homo sapiens*]				BeiGene (Beijing China)	Therapeutic	Solid tumors	Phase I/II		CHO (Chinese Hamster Ovary) cells	Oncology					
956	manelimab	11133	121 (2019)	83 (2020)	BCD-135		*Homo sapiens*	IG		IgG1 - lambda		11133		CD274 (programmed cell death 1 ligand 1, B7H1, B7-H1, PDL1, PD-L1, PDCD1L1, B7 homolog 1, B7 homologue 1) [*Homo sapiens*]			CHO-S/aPD-L1	CJSC Biocad (Saint Petersburg Russia)	Therapeutic	Solid tumors	Phase I		CHOK1SV (expresses glutamine synthetase (GS) endogenously) cells	Oncology					
1022	opucolimab	11310	122 (2019)	84 (2020)	AHLX-20, HLX-20		*Homo sapiens* Humanized	IG		IgG1 - lambda		11310		CD274 (programmed cell death 1 ligand 1, B7H1, B7-H1, PDL1, PD-L1, PDCD1L1, B7 homolog 1, B7 homologue 1) [*Homo*				Shanghai Henlius Biotech (Shanghai China)	Therapeutic	Solid tumors	Phase I			Oncology	1 studies found, 1 recruiting				

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														sapiens]															
963	pacmilimab	10938	121 (2019)	83 (2020)	CX-072	Probody™	*Homo sapiens*	IG		IgG4 - kappa		10938		CD274 (programmed cell death 1 ligand 1, B7H1, B7-H1, PDL1, PD-L1, PDCD1L1, B7 homolog 1, B7 homologue 1) [*Homo sapiens*]			CXA1a-CB-CC1-TR1-MPP5-C60	CytomX Therapeutics Inc. (South San Francisco CA USA)	Therapeutic	Solid tumors	Phase II		CHO (Chinese Hamster Ovary) cells	Oncology					
1031	sugemalimab	11330	122 (2019)	84 (2020)	CS-1001, CS1001, WBP-3155, WBP3155, WBP3155B		*Homo sapiens*	IG		IgG4 - lambda		11330		CD274 (programmed cell death 1 ligand 1, B7H1, B7-H1, PDL1, PD-L1, PDCD1L1, B7 homolog 1, B7 homologue 1) [*Homo sapiens*]				CStone Pharmaceuticals (Suzhou China)	Therapeutic	Cancers, non-small cell lung (NSCLC)	Phase III		CHO (Chinese Hamster Ovary) cells	Oncology	12 studies found, 12 recruiting				
																			Therapeutic	T cell lymphoma	Phase II			Immunology					
																			Therapeutic	Solid tumors	Phase I			Oncology					
																			Therapeutic	Hodgkin lymphoma	Phase II			Oncology					
614					BMS-936559, MDX-1105		*Homo sapiens*	IG		IgG4 - nd				CD274 (programmed cell death 1 ligand 1, B7H1, B7-H1, PDL1, PD-L1, PDCD1L1, B7 homolog 1, B7 homologue 1) [*Homo sapiens*]				Bristol-Myers Squibb (Princeton NJ USA)	Therapeutic	Melanoma, metastatic	Phase I			Oncology			(8)		

IMGT notes:

(1) Phase I/II in combination with varlilumab for renal cancers.
(2) *atezolizumab* was obtained from phage antibody library (Patent WO 2010/077634 A1).
(3) The VH-CH1 (225 AA) and L_KAPPA (214 AA) of 5x8l (IMGT/3Dstructure-DB) and 9814 (IMGT/2Dstructure-DB) are 100% identical.
(4) Phase III for Non-small cell lung cancers (NSCLC) initiated by Merck KGaA, Darmstadt, Germany, and Pfizer.
(5) There are four amino acid differences (three of them linked to allotypes and one engineered to the fusion in 10665) between the H chains of 10062 (*avelumab*) (AA 1-450) Gm17,1, CH1 K120 (217), CH3 D12 (359), L14 (361), CHS K2 (450) and 10665 (*bintrafusp alfa*) (AA 1-450, not including the fused linker and TGFBR2) Gm3, nG1m1, CH1 R120 (217), CH3 E12 (359), M14 (361), CHS A2 (engineered).
The sequence of the amino acids 1-223 of the Fab 3D 4nki_H chain is identical in 10062 and 10665.
The amino acid sequence of the lambda chain (1-216 AA) is identical in 10062, in 10665 and in the Fab 3D 4nki_L chain.
(6) *bintrafusp alfa* INN structure is that amended in L121 (2019).
(7) The Fc of durvalumab is modified in such a way that it does not induce either antibody-dependent cytotoxicity (ADCC) or complement-dependent cytotoxicity (CDC).
(8) BMS-936559 by binding to CD274 on the APC blocks the interaction to PDCD1 and CD80 on the T cell

IMGT glossary:

ATC:	Anatomical Therapeutic Chemical code
BLA:	Biologics License Application (FDA)
CEBER:	Center for Biologics Evaluation and Research
CHMP:	Committee for Medicinal Products for Human Use, EMA
Canada (PHAC):	Public Health Agency of Canada
China (CFDA):	China Food and Drug Administration
DailyMed:	http://dailymed.nlm.nih.gov
EC:	European Commission
ELA:	Establishment License Application (FDA)
EMA:	European Medicines Agency for the Evaluation of Medical Products
EU:	European Union
FDA:	Food and Drug Administration
INN:	International Nonproprietary Name (WHO)
IUPHAR:	IUPHAR/BPS Guide to Pharmacololy, International Union of Basic and Clinical Pharmacology
India (DCGI):	Drug Controller General of India
Japan (MHLW):	Japan Ministry of Health, Labour and Welfare
Japan (PMDA):	Japan Pharmaceuticals and Medical Devices Agency
Korea (MFDS):	Korea Ministry of Food and Drug Safety (formerly KFDA, Korea Food and Drug Administration)
NCI:	National Cancer Institute
NCI Drug Dictionary:	NCI Drug Dictionary
NCIt:	NCI Thesaurus Code
NDA:	New Drug Application (FDA)
NDC code:	National Drug Code
OOPD:	Office of Orphan Products Development (FDA)
PLA:	Product License Application (FDA)
REMS:	Risk Evaluation and Mitigation Strategy
Russia (MH):	Russian Ministry of Health
SRS:	Substance Registration System (FDA)
UNII:	Unique Ingredient Identifier (FDA)
WHO:	World Health Organization
sBLA:	Supplemental Biologics License Application

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