SynthImmunol_NMU

Notebook

No.<u>3</u>

Time: 2024.06.07-2024.06.09

1. Experiment: Investigation of NK cell receptors

2. Time: 2024.06.07-2024.06.09

3. Member: Song Zhang, Yaqi Gao, Xinyu Zhu, Yinran Luo, Xudong Tang, Xiaoyuan Chen, Hanyue Liu

4. Method: By searching the literature and consulting the website, the information of various receptors of NK cells was learned in terms of their corresponding ligands, clinical batch numbers, related application and importance evaluation.

5. Result: The information of KAR and KIR has been listed in the following table.

			R and KIR of NE	
Number	Category	Receptor	Ligand	Clinical Batch Number
1	KIR	TIGIT	PVR, PVRL2, CD155	[I:1.NCT03119428:locally advanced cancer metastatic cancer 2. NCT04465643: neurilemmoma 3. NCT03667716: breast cancer, colorectal cancer, endometrial cancer II: 1. NCT04761198: melanoma 2. NCT04570839: endometrial cancer,head and neck cancer,ovarian cancer 3. NCT03342417: gastric cancer breast cancer ovarian cancer, III: 1.NCT05568095: advanced upper gastrointestinal tract adenocarcinoma 2. NCT06346197: gastric cancer] 2) Pembrolizumab [I: 1.NCT04354246:colon cancer, lung cancer,ovarian cancer 2. NCT04374877: Advanced Solid Tumor, Clear Cell Renal Cell Carcinoma, Hepatocellular Carcinoma, Non-small Cell Lung Cancer 3. NCT04323202: Basal Cell Carcinoma of the Head and Neck 4. NCT03772899: melanoma 5. NCT04305054: melanoma II: 1. NCT05060432:head and neck cancer, lung cancer, melanoma 2.NCT03447678:non-small cell lung cancer 3. NCT05805501:Renal Cell Carcinoma 4. NCT05809895: three negative breast cancer 5. NCT04303169: melanoma 6.NCT04305041: melanoma 7.NCT04305054: melanoma III: 1.NCT04736173: lung cancer 2.NCT04746924: non-small cell lung cancer 3. NCT05865595: melanoma III: 1.NCT04585815:non-small cell lung cancer] 4) Dexamethasone [II: 1.NCT045665931:non-small cell lung cancer] 5. Docetaxel [II: 1.NCT0465643:neurilemmoma II: 1.NCT0465643:neurilemmoma II: 1.NCT04665643:neurilemmoma II: 1.NCT03342417: breast cancer,gastric cancer, ovarian cancer 2.NCT03739710: non-small cell lung cancer]

			9, MHCII	Acute Myeloid Leukemia, in Relapse
				2.NCT06056895:Clinical Stage IV Merkel Cell Carcinoma
				AJCC v8, Merkel Cell Carcinoma, Unresectable Clinical
				Stage III Merkel Cell Carcinoma AJCC v8
				3.NCT05287113:Head and Neck Cancer
				4.NCT05216835:Relapsed or Refractory Classical Hodgkin
				Lymphoma
				5.NCT04931654:Carcinoma, Non-Small-Cell Lung, Gastric
				Cancer, Gastroesophageal Junction Cancer
				6.NCT04370704:melanoma
				1.NCT05075564:Advanced Solid Tumor
3	KIR	CD39	Adenosine	2.NCT04306900:solid tumor
3	KIK	CD39	Adenosine	3.NCT05648188:non-small cell lung cancer
				4.NCT05374226:solid tumor
				1.NCT04495179:Progressive Metastatic Castrate-Resistant
4	KIR	4 2 A D	A danasina	Prostate Cancer
4	KIK	A2AR	Adenosine	2.NCT05501054:Renal Cell Carcinoma
				3.NCT05920408:advanced solid tumor
				1.NCT05632328:Advanced Pancreatic Ductal
				Adenocarcinoma, Pancreatic Cancer, Pancreatic Ductal
5	KIR	CD73	Adenosine	Adenocarcinoma
				2.NCT05174585:solid tumor
				3.NCT04940286:pancreatic cancer
	IZID	IVIDADI A	TTT 4 4	1.NCT05321147:Peripheral T Cell Lymphoma
6	KIR	KIR3DL2	HLA-A	2.NCT02593045:Cutaneous T-Cell Lymphoma
7	IZID	IZIDADI A	11111 42	1.NCT05958199:Locally Advanced Cancer, Metastatic
7	KIR	KIR3DL3	HHLA2	Cancer
0	ZID	2B4	CD 40	
8	KIR	(CD244)	CD48	-
9	KIR	Siglec7/9	Sialic acids	-
10	KIR	LIR-1	HLA-A-G	-
11	KIR	KIR3DL1	HLA-B	-
12	KIR	NKG2B	HLA-E	-
13	KIR	LAIR-1	Collagen	-
14	KIR	LILRB1	ICAM-1	-
15	KIR	NKp44	PCNA, NID1	-
16	KIR	NKR-P1B	CIr-b	-
			MHC II,	
			Galectin-3,	
			Liver	
		* * *:=	sinusoidal	
17	KIR	LAG3	endothelial	-
			cell lectin,	
			Fibrinogen-lik	
			e protein 1,	
			1 7	

_				
			Pre-formed	
			fibrils (PFF)	
			of α-synuclein	
18	KIR	CD96	CD155,	_
10	KIIK	CD70	CD111	
19	KIR	CEACA	CEACAM-1/	_
17	KIIK	M-1	5	
20	KIR	KIR2DL1	HLA-C2	-
21	KIR	KIR2DL2	HLA-C1	-
22	KIR	KIR2DL3	HLA-C1	-
23	KIR	KIR2DL5	PVR	-
			E-Cadherins,	
24	KIR	KLRG1	N-Cadherins,	-
			R-Cadherins	
25	KIR	LFA1	HLA-I	-
26	KIR	NKG2A/ CD94	HLA-E	-
27	KAR	CD27	CD70	1.NCT02543645: Bladder Cancer, Carcinoma, Renal Cell, Clear-cell Metastatic Renal Cell Carcinoma, Head and Neck Cancer 2.NCT02386111: Carcinoma, Renal Cell, Clear-cell Metastatic Renal Cell Carcinoma, Kidney Diseases, Kidney Neoplasms 3.NCT03307746: B Cell Lymphoma 4.NCT02335918: Colorectal Cancer (CRC)-Enrollment Completed, Glioblastoma (GBM) (Phase Il Only)-Enrollment Completed, Ovarian Carcinoma-Enrollment Completed, Renal Cell Carcinoma (RCC) (Phase Il Only), Squamous Cell Carcinoma of the Head and Neck (SCCHN), 5.NCT02413827: Unresectable Stage III or Stage IV Melanoma
28	KAR	CD16a	IgG Fc	6.NCT03038672: Relapsed or Refractory Aggressive B-cell Lymphomas 7.NCT02270372: Advanced Breast Carcinoma, Advanced Ovarian Carcinoma 8.NCT04081688: Refractory Lung Non-Small Cell Carcinoma, Stage IV Lung Cancer AJCC v8 9.NCT02284971: Prostate Cancer, Prostatic Neoplasms 1.NCT01577173: Head and Neck Cancer 2. NCT02665650: Hodgkin Lymphoma 3.NCT03192202: Lymphoma, T-Cell, Cutaneous 4.NCT04074746: Recurrent Anaplastic Large Cell Lymphoma, Recurrent B-Cell Non-Hodgkin Lymphoma, Recurrent Classic Hodgkin Lymphoma, Recurrent Mycosis

Otherwise Specified, Refractory Anaplastic Large Ce Lymphoma, Refractory B-Cell Non-Hodgkin Lymphoma Refractory Classic Hodgkin Lymphoma, Refractor Mycosis Fungoides, Refractory Peripheral T-Ce Lymphoma, Not Otherwise Specified 5.NCT04101331: Peripheral T Ce Lymphoma, Transformed Mycosis Fungoides 6. NCT04259450: Advanced Solid Tumor, NCT0510944 Advanced Solid Tumor 7. NCT03902184: Lymphoma, T-Cell, Lymphoma, T-Cel Cutaneous, Mycosis Fungoides/Sezary Syndrome 1.NCT05086315: Acute Lymphocytic Leukaemia, Acu Mycloid Leukaemia Refractory, Blastic Plasmacyto Dendritic Cell Non-Hodgkin HAA Refractory Multiple Mycloma 3.NCT01915992: Leukemia HLA-F-HLA- Bw4 HLA-DP401. MKp65 AKAR NKp65 AKAR KIR2DS2 HLA-A/C NA.nidogen 1 KACL.CLEC AA KAR KIR2DS2 HLA-A/C HA-B KAR KIR2DS3 HLA-A/C MHA-E MSP70, GCDS8 GCD HLA-C HLA-B MKR2DS3 HLA-C2 HLA-C HLA-					
Lymphoma, Refractory B-Cell Non-Hodgkin Lymphoma Refractory Classic Hodgkin Lymphoma, Refractory Mycosis Fungoides, Refractory Peripheral T-Ce Lymphoma, Transformed Mycosis Fungoides 5.NCT04101331: Peripheral T-Ce Lymphoma, Transformed Mycosis Fungoides 6. NCT04259450: Advanced Solid Tumor 7. NCT03902184: Lymphoma, T-Cell, Lymphoma, T-Cell Lymphoma, T-Cell, Lymphoma, T-Cell Lymphoma, T-Cell, Lymphoma, T-Cell Lymphoma, T-					Fungoides, Recurrent Peripheral T-Cell Lymphoma, Not
Refractory Classic Hodgkin Lymphoma, Refractor Mycosis Fungoides, Refractory Peripheral T-Ce Lymphoma, Not Otherwise Specified 5.NcT04101331: Peripheral T Ce Lymphoma, Transformed Mycosis Fungoides 6. NcT04259450: Advanced Solid Tumor, NcT0510944 Advanced Solid Tumor 7. NcT03902184: Lymphoma, T-Cell, Lymphoma, T-Ce					Otherwise Specified, Refractory Anaplastic Large Cell
Mycosis Fungoides Refractory Peripheral T-Ce					Lymphoma, Refractory B-Cell Non-Hodgkin Lymphoma,
Lymphoma, Not Otherwise Specified 5.NCT04101331: Peripheral T Ce Cymphoma, Transformed Mycosis Fungoides 6. NCT04259450: Advanced Solid Tumor 7. NCT03902184: Lymphoma, Tr-Cell, Lymphoma, Tr-C					Refractory Classic Hodgkin Lymphoma, Refractory
S.NCT04101331: Peripheral T Cet Lymphoma,Transformed Mycosis Fungoides					Mycosis Fungoides, Refractory Peripheral T-Cell
Lymphoma, Transformed Mycosis Fungoides 6. NCT04259450: Advanced Solid Tumor 7. NCT0510944 Advanced Solid Tumor 7. NCT03902184: Lymphoma, T-Cell, Lymphoma, T-Cel Cutancous, Mycosis Fungoides/Sezary Syndrome 1. NCT05086315: Acute Lymphocytic Leukaemia, Acu Mycloid Leukaemia Refractory, Blastic Plasmacyto Dendritic Cell Neoplasia, Myelodysplastic Syndrome 2. NCT05839626: Amyloid Light-chain Amyloidosi Rclapsed/Refractory Multiple Mycloma 3. NCT01915992: Leukemia Amyloidosi Rclapsed/Refractory Multiple Mycloma 3. NCT01915992: Leukemia HLA-5PH01. 31					Lymphoma, Not Otherwise Specified
6. NCT04259450: Advanced Solid Tumor, NCT0510944 Advanced Solid Tumor 7. NCT03902184: Lymphoma, T-Cell, Leukamia Refractory, Blastic Plasmady. Relapsed/Refractory Multiple Myeloma 3.NCT01915992: Leukemia 10. KAR					5.NCT04101331: Peripheral T Cell
Advanced Solid Tumor					Lymphoma, Transformed Mycosis Fungoides
7. NCT03902184: Lymphoma, T-Cell, Lymphoma, T-Cell Cutaneous, Mycosis Fungoides/Sezary Syndrome 1.NCT05086315: Acute Lymphocytic Leukaemia, Acu Myeloid Leukaemia Refractory, Blastic Plasmacytor Dendritic Cell Neoplasia, Myelodysplastic Syndromes 2.NCT05839626: Amyloid Light-chain Amyloidosi Relapsed/Refractory Multiple Myeloma 3.NCT01915992: Leukemia HLA-F.HLA- Bw4 HLA-DP401. RKAR NKp65 ACL-CLEC AA ACL-CLEC AC AC ACL-CLEC AC AC ACL-CLEC AC ACL-CLEC AC ACL-CLEC AC AC ACL-CLEC AC ACL-CLEC AC AC ACL-CLEC AC ACL-CLEC AC					6. NCT04259450: Advanced Solid Tumor, NCT05109442:
Cutaneous, Mycosis Fungoides/Sezary Syndrome 1.NCT05086315: Acute Lymphocytic Leukaemia, Acute Mycloid Leukaemia Refractory, Blastic Plasmacyto Dendritic Cell Neoplasia, Myclodysplastic Syndromes 2.NCT05839626: Amyloid Light-chain Amyloidosi Relapsed/Refractory Multiple Mycloma 3.NCT01915992: Leukemia 3.NCT01915992: Leukemia 4.1					Advanced Solid Tumor
1.NCT05086315: Acute Lymphocytic Leukaemia, Acute Mycloid Leukaemia Refractory, Blastic Plasmacytor Dendritic Cell Neoplasia, Myclodysplastic Syndromes Pactor, Viral HA Relapsed/Refractory Multiple Mycloma 3.NCT01915992: Leukemia Nerpado Light-chain Amyloidosi Relapsed/Refractory Multiple Mycloma 3.NCT01915992: Leukemia Nerpado Nerpado Light-chain Amyloidosi Relapsed/Refractory Multiple Mycloma 3.NCT01915992: Leukemia Nerpado Light-chain Amyloidosi Relapsed/Refractory Multiple Mycloma 3.NCT01915992: Leukemia Packor Mycloma 3.NCT01					7. NCT03902184: Lymphoma, T-Cell, Lymphoma, T-Cell,
CFP					Cutaneous, Mycosis Fungoides/Sezary Syndrome
Complete Factor, Viral Light-chain Amyloidosi Relapsed/Refractory Multiple Myeloma 3.NCT01915992: Leukemia					1.NCT05086315: Acute Lymphocytic Leukaemia, Acute
Factor, Viral 2.NCT05839626: Amyloid Light-chain Amyloidosi HA Relapsed/Refractory Multiple Myeloma 3.NCT01915992: Leukemia HLA-F.HLA-Bw4 HLA-DP401.				CFP	Myeloid Leukaemia Refractory, Blastic Plasmacytoid
Factor, Viral Z.NCT105839626: Amyloid Light-chain Amyloidosi HA Relapsed/Refractory Multiple Myeloma 3.NCT01915992: Leukemia HLA-F.HLA-Bw4 HLA-DP401.	20	IZ A D	NIIZ 4.6	Complete	Dendritic Cell Neoplasia, Myelodysplastic Syndromes
3.NCT01915992: Leukemia HLA-F.HLA-Bw4	29	KAK	NKp46	Factor, Viral	2.NCT05839626: Amyloid Light-chain Amyloidosis,
HLA-F.HLA-Bw4 HLA-DP401.				HA	Relapsed/Refractory Multiple Myeloma
Bw4					3.NCT01915992: Leukemia
Bw4	20	VAD	VID2DC1	HLA-F.HLA-	
SAR	30	KAK	KIKSDS1	Bw4	-
NA.nidogen 1 KACL.CLEC 2A 33 KAR KIR2DS2 HLA-A/C 34 KAR KIR2DL4 HLA-G, HS 35 KAR CD94/NK MHsp70, G2C HLA-E 36 KAR CRTAM Necl-2 37 KAR NTB-A NTB-A 38 KAR CD2 CD58 39 KAR KIR2DS3 unknown 40 KAR KIR2DS5 HLA-C2 41 KAR KIR3DL2 CpG 42 KAR NKp30 B7-H6, BAT3, BAG6 43 KAR KIR2DS1 HLA-C2 HLA-A, 44 KAR KIR2DS4 HLA-C, HLA-F 45 KAR NKp80 (KLRF1) NKG2D MICA/B,				HLA-DP401.	
32 KAR NKp65	31	KAR	NKp44	PDGF-DD.PC	-
32 KAR NKp65 2A 33 KAR KIR2DS2 HLA-A/C 34 KAR KIR2DL4 HLA-G, HS 35 KAR CD94/NK mHsp70, G2C HLA-E 36 KAR CRTAM Necl-2 37 KAR NTB-A NTB-A 38 KAR CD2 CD58 39 KAR KIR2DS3 unknown 40 KAR KIR2DS3 HLA-C2 41 KAR KIR3DL2 CpG 42 KAR NKp30 B7-H6, BAT3, BAG6 43 KAR KIR2DS1 HLA-C2 HLA-A, 44 KAR KIR2DS4 HLA-C, HLA-F 45 KAR NKp80 (KLRF1) NKG2D MICA/B,				NA.nidogen 1	
33 KAR KIR2DS2 HLA-A/C - 34 KAR KIR2DL4 HLA-G, HS - 35 KAR CD94/NK mHsp70, G2C HLA-E 36 KAR CRTAM Necl-2 - 37 KAR NTB-A NTB-A - 38 KAR CD2 CD58 - 39 KAR KIR2DS3 unknown - 40 KAR KIR2DS5 HLA-C2 - 41 KAR KIR3DL2 CpG - 42 KAR NKp30 B7-H6, BAT3, BAG6 43 KAR KIR2DS1 HLA-C2 - HLA-A, 44 KAR KIR2DS4 HLA-C, - HLA-F 45 KAR NKp80 KARCL NKp80 AICL - NKG2D MICA/B,	22	VAD	NV 65	KACL.CLEC	
34 KAR KIR2DL4 HLA-G, HS 35 KAR CD94/NK mHsp70, 36 KAR CRTAM Necl-2 37 KAR NTB-A NTB-A 38 KAR CD2 CD58 39 KAR KIR2DS3 unknown 40 KAR KIR2DS5 HLA-C2 41 KAR KIR3DL2 CpG 42 KAR NKp30 B7-H6, BAT3, BAG6 43 KAR KIR2DS1 HLA-C2 44 KAR KIR2DS4 HLA-C, 45 KAR NKp80 (KLRF1) NKG2D MICA/B,	32	KAK	TVIXp03	2A	-
35 KAR CD94/NK mHsp70, G2C HLA-E 36 KAR CRTAM Necl-2 37 KAR NTB-A NTB-A 38 KAR CD2 CD58 39 KAR KIR2DS3 unknown 40 KAR KIR2DS5 HLA-C2 41 KAR KIR3DL2 CpG 42 KAR NKp30 B7-H6, BAT3, BAG6 43 KAR KIR2DS1 HLA-C2 44 KAR KIR2DS4 HLA-C2 45 HLA-A, 46 KAR NKp80 AICL NKG2D MICA/B,	33	KAR	KIR2DS2	HLA-A/C	-
35 KAR G2C HLA-E 36 KAR CRTAM Necl-2 37 KAR NTB-A NTB-A 38 KAR CD2 CD58 39 KAR KIR2DS3 unknown 40 KAR KIR2DS5 HLA-C2 41 KAR KIR3DL2 CpG 42 KAR NKp30 B7-H6, BAT3, BAG6 43 KAR KIR2DS1 HLA-C2 HLA-A, 44 KAR KIR2DS4 HLA-C, HLA-F 45 KAR NKp80 (KLRF1) NKG2D MICA/B,	34	KAR	KIR2DL4	HLA-G, HS	-
36 KAR CRTAM Necl-2 - 37 KAR NTB-A NTB-A - 38 KAR CD2 CD58 - 39 KAR KIR2DS3 unknown - 40 KAR KIR2DS5 HLA-C2 - 41 KAR KIR3DL2 CpG - 42 KAR NKp30 B7-H6, BAT3, BAG6 - 43 KAR KIR2DS1 HLA-C2 - HLA-A, 44 KAR KIR2DS4 HLA-C, HLA-F 45 KAR NKp80 (KLRF1) NKG2D MICA/B,	35	KΔR	CD94/NK	mHsp70,	_
37 KAR NTB-A NTB-A	33	IX/IIC	G2C	HLA-E	
38 KAR CD2 CD58 39 KAR KIR2DS3 unknown 40 KAR KIR2DS5 HLA-C2 41 KAR KIR3DL2 CpG 42 KAR NKp30 B7-H6, BAT3, BAG6 43 KAR KIR2DS1 HLA-C2 HLA-A, 44 KAR KIR2DS4 HLA-C, HLA-F 45 KAR NKp80 (KLRF1) NKG2D MICA/B,	36	KAR	CRTAM	Necl-2	-
39 KAR KIR2DS3 unknown 40 KAR KIR2DS5 HLA-C2 41 KAR KIR3DL2 CpG 42 KAR NKp30 B7-H6, BAT3, BAG6 43 KAR KIR2DS1 HLA-C2 HLA-A, 44 KAR KIR2DS4 HLA-C, HLA-F 45 KAR NKp80 (KLRF1) NKG2D MICA/B,	37	KAR	NTB-A	NTB-A	-
40 KAR KIR2DS5 HLA-C2 - 41 KAR KIR3DL2 CpG - 42 KAR NKp30 B7-H6, BAT3, BAG6 - 43 KAR KIR2DS1 HLA-C2 - HLA-A, 44 KAR KIR2DS4 HLA-C, HLA-F 45 KAR NKp80 (KLRF1) AICL - NKG2D MICA/B,	38	KAR	CD2	CD58	-
41 KAR KIR3DL2 CpG - 42 KAR NKp30 B7-H6, BAT3, BAG6 - 43 KAR KIR2DS1 HLA-C2 - HLA-A, 44 KAR KIR2DS4 HLA-C, HLA-F 45 KAR NKp80 (KLRF1) NKG2D MICA/B,	39	KAR	KIR2DS3	unknown	-
42 KAR NKp30 B7-H6, BAT3, BAG6 43 KAR KIR2DS1 HLA-C2 - HLA-A, 44 KAR KIR2DS4 HLA-C, HLA-F 45 KAR NKp80 (KLRF1) AICL - NKG2D MICA/B,	40	KAR	KIR2DS5	HLA-C2	-
42 KAR NKp30 BAT3, BAG6 43 KAR KIR2DS1 HLA-C2 HLA-A, 44 KAR KIR2DS4 HLA-C, HLA-F 45 KAR NKp80 (KLRF1) NKG2D MICA/B,	41	KAR	KIR3DL2	CpG	-
43 KAR KIR2DS1 HLA-C2 - HLA-A, 44 KAR KIR2DS4 HLA-C, - HLA-F 45 KAR NKp80 AICL - NKG2D MICA/B,	42	KAR	NKp30	ŕ	_
HLA-A, 44 KAR KIR2DS4 HLA-C,	12	TO IT	TTEPSO		
44 KAR KIR2DS4 HLA-C, HLA-F 45 KAR NKp80 (KLRF1) AICL NKG2D MICA/B,	43	KAR	KIR2DS1	HLA-C2	-
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				HLA-A,	
45 KAR NKp80 AICL - (KLRF1) NKG2D MICA/B,	44	KAR	KIR2DS4	HLA-C,	-
45 KAR AICL - (KLRF1) NKG2D MICA/B,				HLA-F	
(KLRF1) NKG2D MICA/B,	45	KAR	-	AICL	-
46 KAR -		11.11			
	46	KAR			_
(CD159a) ULBP1-6,			(CD159a)	ULBP1-6,	

SynthImmunol_NMU

Notebook

No.<u>3</u>

			Ae-1, H60,
			MULT1
47	IZ A D	TRAIL	TRAILR1a,
47	KAR	(CD253)	TRAILR2
40	IZ A D	DNAM1	CD112,
48	KAR	(CD226)	CD155