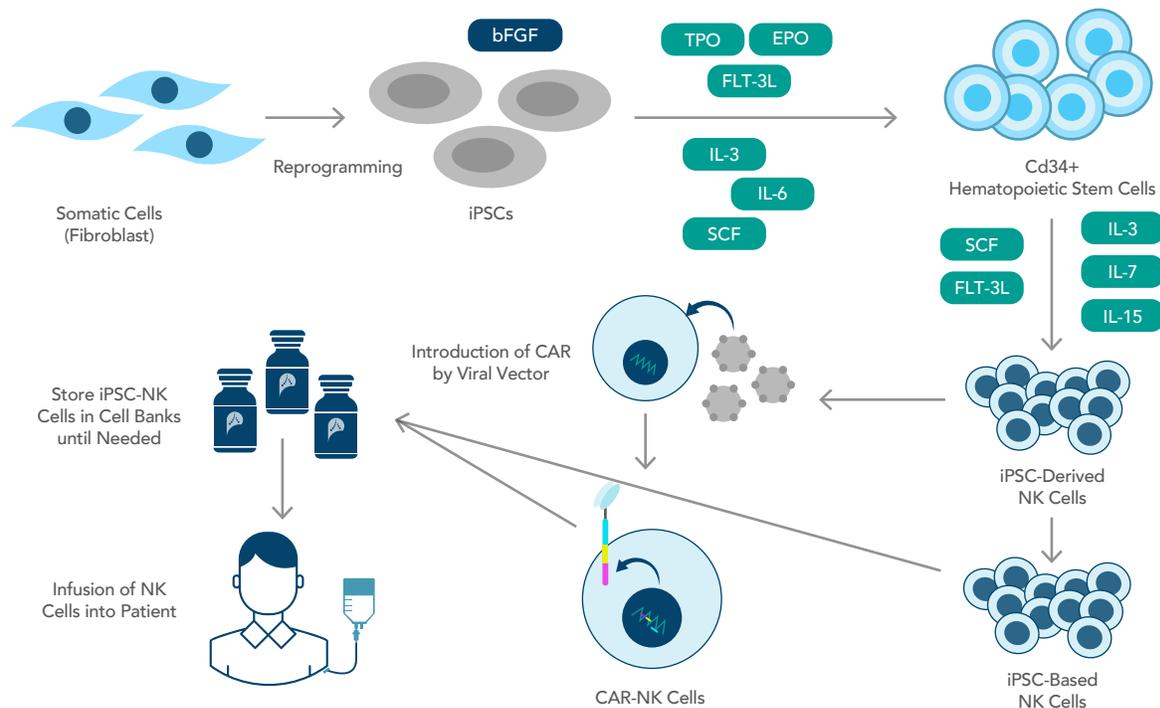


# iPSCs to NK cells

## A cell therapy perspective

- Natural killer (NK) cells are key effectors of the innate immune system.
- NK cells have features that can overcome current challenges associated with CAR-T cells.
- Several clinical trials demonstrate the efficacy of allogeneic NK cell adoptive transfer therapy.
- Unlike allogeneic CAR-T cell therapy, allogeneic NK cells do not show Graft vs host disease (GvHD).
- iPSCs-derived NK cells provide added benefits in terms of ease of genetic modification, clonal selection, and no need of a donor for cell collection.
- iPSCs-derived NK cells are an excellent choice for off-the-shelf cell therapy.

### Overview of iPSC-derived NK cell therapy



Proteintech offers a portfolio of bioactive cytokines for iPSC maintenance and differentiation to NK cells. Proteintech's HumanKine® recombinant proteins are Human cells (HEK293) expressed with high bioactivity, stability, lot-to-lot consistency, and native human conformation & post-translational modifications, which ensures better proliferation and differentiation of cell cultures.

### Humankine® is

- ✓ Animal component free
- ✓ Endotoxin free
- ✓ Xeno free
- ✓ Tag free
- ✓ Carrier free

# Cytokines and Antibodies for iPSCs to NK cell workflows

## HumanKine Cytokines and Growth Factors

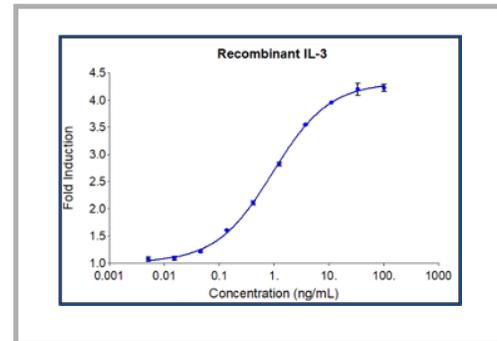
Protein	Cat No.	Activity	Purity	GMP-Grade
IL-2	HZ-1015	0.05-0.35 ng/mL	>95%	Yes
IL-3	HZ-1074	0.4-2.0 ng/mL	>95%	Yes
IL-7	HZ-1281	0.2-1.4 ng/mL	>95%	Yes
IL-15	HZ-1323	0.07-0.37 ng/mL	>95%	Yes
SCF	HZ-1024	15-85 ng/mL	>95%	Yes
FIt3-Ligand	HZ-1151	0.4-3.0 ng/mL	>95%	Yes
BMP4	HZ-1045	1.5-9 ng/mL	>95%	Yes
FGFbasic-TS protein	HZ-1285	0.05-0.4 ng/mL	>95%	Yes
EPO	HZ-1168	0.28-1.4 ng/mL	>95%	Yes
TPO	HZ-1248	Typically ≤ 5 ng/mL	>95%	Yes

## Primary Antibodies

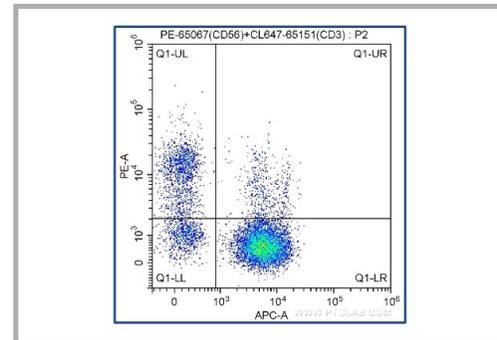
Target	Cat No.	Type	Applications
CD34	14486-1-AP	Rabbit Poly	WB, IHC, IF, FC, ELISA
	60180-1-Ig	Mouse Mono	WB, IHC, IF, FC, ELISA
CD45	20103-1-AP	Rabbit Poly	WB, IHC, IF, FC, ELISA
	60287-1-Ig	Mouse Mono	WB, IP, IHC, IF, FC, ELISA
	65109-1-iG	Mouse Mono	FC
CD117	18696-1-AP	Rabbit Poly	WB, IHC, IF, FC, ELISA
	65154-1-Ig	Mouse Mono	FC
CD161	65115-1-Ig	Mouse Mono	FC
	67537-1-Ig	Mouse Mono	WB, IHC, ELISA
CD94	13332-1-AP	Rabbit Poly	WB
CD56	14244-1-AP	Rabbit Poly	WB, IHC, IF, FC, ELISA
	60238-1-Ig	Mouse Mono	WB, IHC, IF, ELISA
	65067-1-Ig	Mouse Mono	FC
CD16	16559-1-AP	Rabbit Poly	WB, IHC, IF, FC
	65090-1-Ig	Mouse Mono	FC
	66779-1-Ig	Mouse Mono	IHC, ELISA
CD3	17617-1-AP	Rabbit Poly	WB, IP, IHC, IF, FC, ELISA
	60181-1-Ig	Mouse Mono	WB, IHC, IF, FC, ELISA

## Conjugated Antibodies for Flow Cytometry

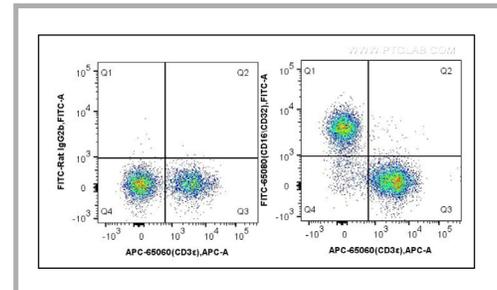
Target	Clone	FITC	PE	PE	CL 488	CL 594	CL 594
CD34	QBEnd-10	FITC-65183	PE-65183				
CD45	HI30	FITC-65109	PE-65109	APC-65109	CL488-65109	CL594-65109	CL647-65109
	2D1	FITC-65082	PE-65082		CL488-65082		CL647-65082
	F10-89-4	FITC-65064	PE-65064	APC-65064			
CD117	104D2		PE-65154	APC-65154			
CD161	HP-3G10	FITC-65115	PE-65115	APC-65115	CL488-65115		CL647-65115
CD56	MEM 188		PE-65067				
CD16	3G8		PE-65090		CL488-65090		CL647-65090
CD3	OKT3	FITC-65133	PE-65133	APC-65133	CL488-65133		CL647-65133
	UCHT1	FITC-65151	PE-65151	APC-65151	CL488-65151		CL647-65151
	Hit3a	FITC-65112	PE-65112	APC-65112	CL488-65112		CL647-65112
	SK7	FITC-65148	PE-65148	APC-65148	CL488-65148		CL647-65148



Humankine® Recombinant IL-3 (Cat no: HZ-1074): The activity was determined by the dose-dependent stimulation of the TF-1 (human erythroleukemic) cell line. Cell number was quantitatively assessed by PrestoBlue® Cell Viability Reagent.



Coralite® 647 Anti-Human CD3 (Cat no: CL647-65151) PE Anti-Human CD56 (Cat no: PE-65067): Human peripheral blood lymphocytes were surface stained with both antibodies. Cells were not fixed.



Mouse splenocytes were surface stained with APC-Anti-Mouse CD3ε (APC-65060, Clone: 145-2C11) and 0.25 ug FITC-Rat IgG2b isotype control (left) or 0.25 ug FITC Anti-Mouse CD16 / CD32 (FITC-65080, Clone: 2.4G2) (right). Cells were not fixed.