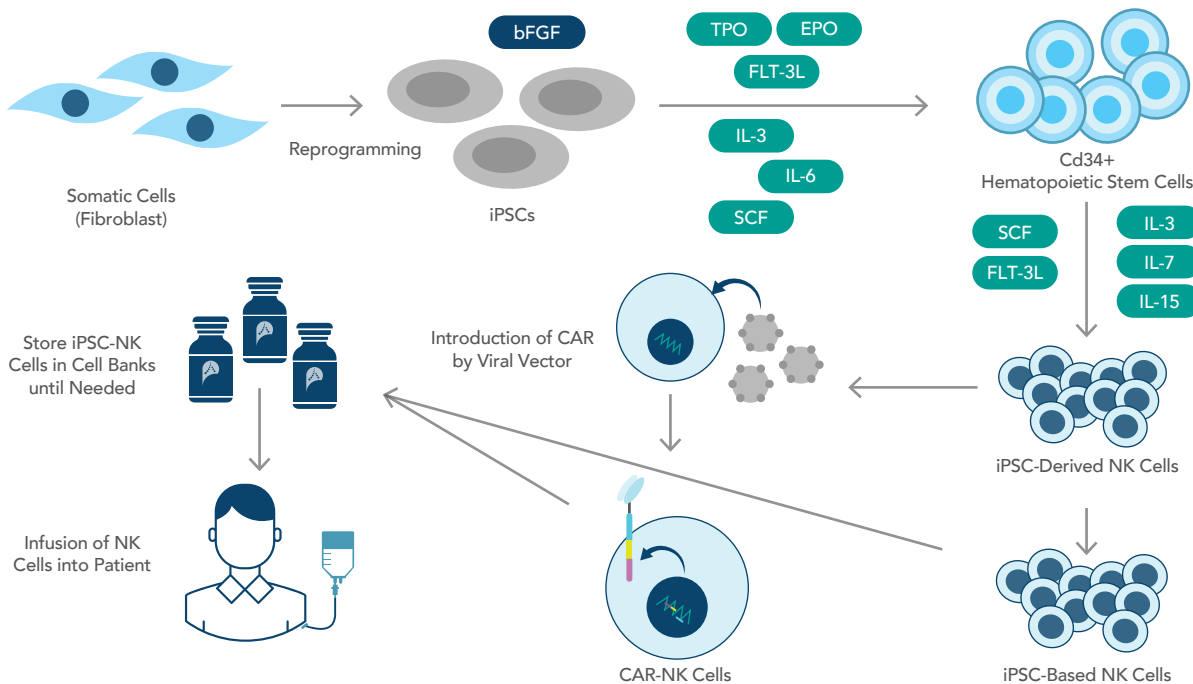


iPSCs to NK cells

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.



Humankine® is

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

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.

Cytokines and Antibodies for iPSCs to NK cell workflows

HumanKine Cytokines and Growth Factors

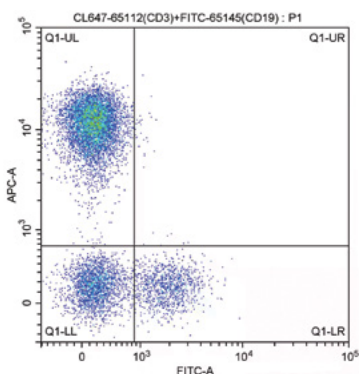
| Protein | Catalog No. | Activity | Purity | GMP-grade |
|---------------------|-------------|---------------------|--------|-----------|
| L-2 | HZ-1015 | 0.05-0.35 ng/mL | 95% | ✓ |
| IL-3 | HZ-1074 | 0.4-2.0 ng/mL | 95% | ✓ |
| IL-7 | HZ-1281 | 0.2-1.4 ng/mL | 95% | ✓ |
| IL-15 | HZ-1323 | 0.07-0.37 ng/mL | 95% | ✓ |
| SCF | HZ-1024 | 15-85 ng/mL | 95% | ✓ |
| Flt3-Ligand | HZ-1151 | 0.4-3.0 ng/mL | 95% | ✓ |
| BMP4 | HZ-1045 | 1.5-9 ng/mL | 95% | ✓ |
| FGFbasic-TS protein | HZ-1285 | 0.05-0.4 ng/mL | 95% | ✓ |
| EPO | HZ-1168 | 0.28-1.4 ng/mL | 95% | |
| TPO | HZ-1248 | Typically ≤ 5 ng/mL | 95% | |

Primary Antibodies

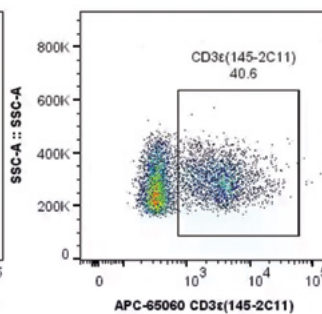
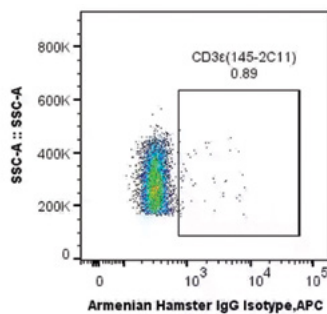
| Target | Catalog No. | Type | Applications |
|--------|-------------|-------------|----------------------------|
| CD34 | 14486-1-AP | Rabbit Poly | WB, IHC, IF, FC, ELISA |
| | CD45 | Mouse Mono | WB, IHC, IF, FC, ELISA |
| | 20103-1-AP | Rabbit Poly | WB, IHC, IF, FC, ELISA |
| CD45 | CD161 | Mouse Mono | WB, IP, IHC, IF, FC, ELISA |
| | CD94 | Mouse Mono | FC |
| CD117 | 18696-1-AP | Rabbit Poly | WB, IHC, IF, FC, ELISA |
| | CD16 | 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 |
| | 14244-1-AP | Rabbit Poly | WB, IHC, IF, FC, ELISA |
| CD56 | 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 Plus | Coralite® Plus 488 | PE | APC | Coralite® Plus 647 |
|--------|----------|------------|--------------------|----------|-----------|--------------------|
| CD34 | QBEnd-10 | FITC-65183 | | PE-65183 | | |
| | HI30 | FITC-65109 | CL488-65109 | PE-65109 | APC-65109 | CL647-65109 |
| CD45 | 2D1 | FITC-65082 | CL488-65082 | PE-65082 | | CL647-65082 |
| | F10-89-4 | FITC-65064 | | PE-65064 | APC-65064 | |
| CD117 | 104D2 | | | PE-65154 | APC-65154 | |
| CD161 | HP-3G10 | FITC-65115 | CL488-65115 | PE-65115 | APC-65115 | CL647-65115 |
| | B-A19 | FITC-65264 | | PE-65264 | | |
| CD56 | MEM 188 | | | PE-65067 | | |
| | 3G8 | FITC-65090 | CL488-65090 | PE-65090 | APC-65090 | CL647-65090 |
| CD3 | OKT3 | FITC-65133 | CL488-65133 | PE-65133 | APC-65133 | CL647-65133 |
| | UCHT1 | FITC-65151 | CL488-65151 | PE-65151 | APC-65151 | CL647-65151 |
| | Hit3a | FITC-65112 | CL488-65112 | PE-65112 | APC-65112 | CL647-65112 |
| | SK7 | FITC-65148 | CL488-65148 | PE-65148 | APC-65148 | CL647-65148 |



◀ 1X10⁶ human peripheral blood lymphocytes were surface stained with **FITC-Anti-Human CD19 (FITC-65145, Clone: SJ25C1)** and 5.00 ul **Coralite® Plus 647-conjugated Anti-Human CD3 (CL647-65112, Clone: Hit3a)**. Cells were not fixed.



▲ 1X10⁶ mouse splenocytes were surface stained with 0.1 ug **APC Anti-Mouse CD3ε (APC-65060, Clone: 145-2C11)** or 0.1 ug Control Antibody. Cells were not fixed.



Read more about Humankine®