

NK cell Research

1. Isolation

2. Expansion

3. Identify & Characterization

1. Isolation

Kit	Catalog #
MagCelect™ Human NK Cell Isolation Kit	MAGH109
MagCelect™ Mouse NK Cell Isolation Kit	MAGM210

2. Expansion

Kit	Catalog #
CellXvivo HumanNK cell Expansion Kit	CDK015

■ High Quality R&D Systems Cytokine 포함
 ■ 추가 장비 필요없이 kit 하나면 OK

Growth factor for Culturing NK Cells

Natural Killer (NK) Cells			
Molecule	Species	Source	Catalog #
IL-2	Human	E. coli	202-IL
	Mouse	E. coli	402-IL
	Rat	E. coli	502-IL
IL-12	Human	Sf21(baculovirus)	219-IL
	Human	HEK293	10018-IL
	Mouse	Sf21(baculovirus)	419-ML
	Mouse	NSO	10051-ML
IL-15	Human	Sf21(baculovirus)	1760-RL
	Human	E. coli	247-ILB
	Mouse	E. coli	447-ML
IL-18/IL-1F4	Human	E. coli	9124-IL
	Human	E. coli	B001-5
	Mouse	E. coli	9139-IL
	Mouse	E. coli	B002-5
IL-21	Human	E. coli	8879-IL
	Mouse	E. coli	594-ML


3. Identify & Characterization

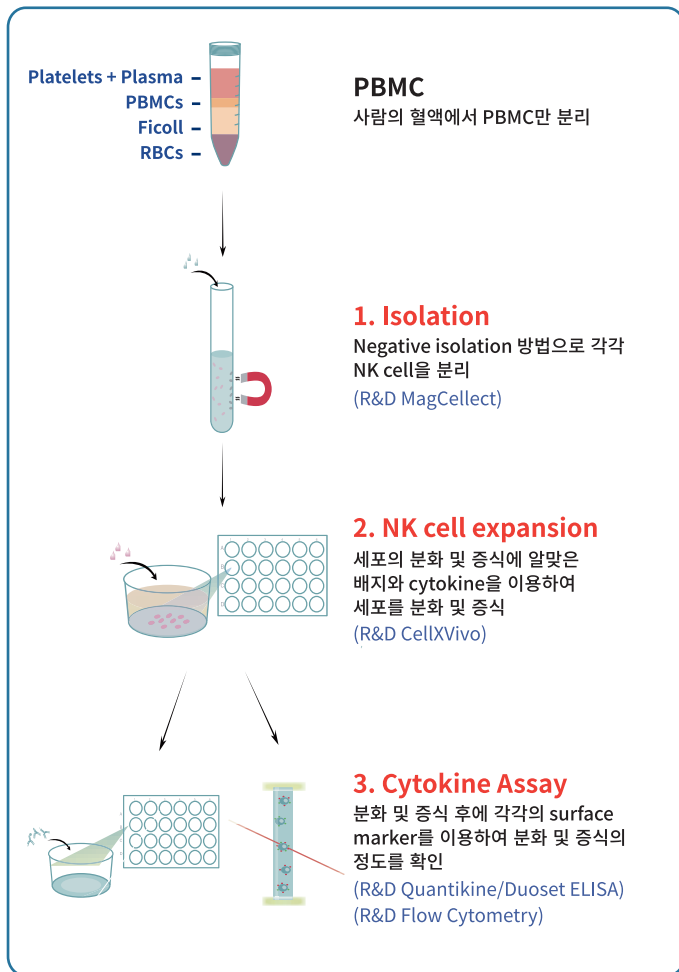
Suggested Kits for ELISA / ELISpot

Molecule	Species	Quantikine® ELISA Catalog #	DuoSet® ELISA Catalog #	ELISpot Kit Catalog #
GM-CSF	Human	DGM00	DY215	
	Mouse	MGM00	DY415	
Granzyme B	Human			EL2906
	Mouse		DY1865	EL1865
IFN-γ	Human	DIF50	DY285	EL285
	Mouse	MIF00	DY485	EL485
IL-10	Human	D1000B	DY217B	EL217B
	Mouse	M1000B	DY417	EL417
TNF-α	Human	DTA00C	DY210	
	Mouse	MTA00B	DY410	EL410

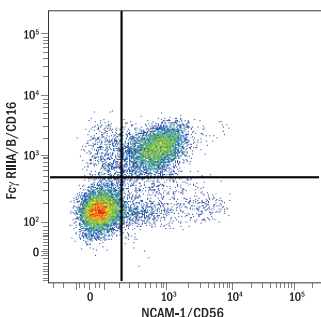
 (TEL) 02-881-5432
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Identification of Human Natural Killer Cells by Flow Cytometry



Human peripheral blood lymphocytes were stained with a PE-conjugated Mouse Anti-Human NCAM-1/CD56 Monoclonal Antibody (Catalog # FAB2408P) and a Fluorescein-conjugated Mouse Anti-Human FcγRIIIA/B/CD16 Monoclonal Antibody (Catalog # FAB2546F). Cells were gated on CD3⁺ lymphocytes.

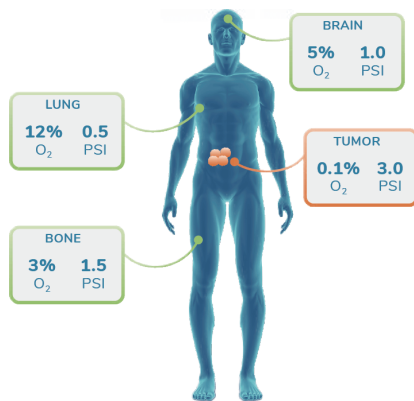
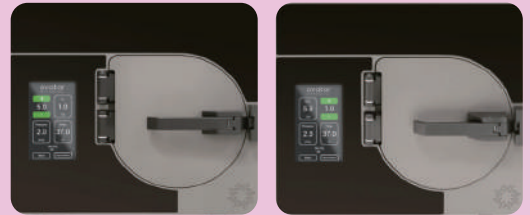
NK Cell Culture

The AVATAR™ Cell Control System

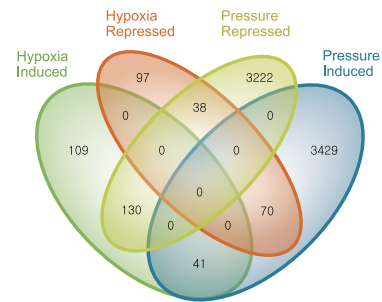
O2와 압력(psi)을 손쉽게 조작!

- T cell 및 NK cell의 killing 능력 향상
- 올바른 Tumor cell killing assay 가능

- High Transfection Efficiency
- Rapid cell Expansion
- Easy Cell Control: Differentiation / Stemness
- Improve your primary tumor culture



인체 내 각 기관마다 압력 및 산소 조건이 다릅니다. 일반 incubator와 비교할 수 없는 culture 환경을 제공합니다.



Venn diagram showing the number of induced and repressed transcripts in each RNA-seq transcriptome produced in response to iPSCs exposed to hypoxia, pressure, or both.

압력 및 산소조건에 의해 달라지는 gene expression 양상을 확인하세요. Cell에 맞는 Culture 환경으로 올바른 data를 얻으실 수 있습니다.

NK-mediated tumor cell killing assay

1. A healthy donor's NK Cells were enriched using MACS

NK cells



2. NK Cells were maintained and expanded for 7 days under the following AVATAR™ culture conditions



Varying pressure culture conditions for NK expansion

3. 24 hours of NK and DU145 prostate cancer cell co-culture under the following AVATAR™ culture conditions

NK cells



+

Prostate Tumor Cells (DU145)



Varying pressure culture conditions during NK-mediated cell killing

4. Quantification of NK-mediated tumor cell killing (brightfield-phase contrast imaging)



Determination of tumor - cell killing by AVATAR™ preconditioned NK cells