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CliniSciences Group



T&L Biotechnology Co., Ltd.

Boost Your Research with T&L Biotechnology's Magnetic Beads



As a leading provider in the biotechnology sector, T&L Biotechnology offers an advanced range of magnetic beads designed to elevate your research in cell separation and activation. Our products, such as the ActSep® CD3/CD28 Separation & Activation Magnetic Beads and the series, are tailored to meet the rigorous demands of modern scientific research. All of them are direct labeling, with humanized antibodies. T&L biotechnology's magnetic beads are applicable with MARS® Bar platform, CliniMACS® Plus, CliniMACS® Prodigy® and other mainstream platforms on the market.

We help researchers with their research journey

We help our clients in successfully completing Phase 1 clinical trials in China and preclinical studies for a dual applications, aimed at securing drug approvals in both China and the United States.

CONTENTS

1.About Us	01
2.Quality Management Systems	02
3.Magnetic Beads	03
- 4.5μm ActSep® CD3/CD28 Separation & Activation Magnetic Beads	03
- 50nm Magnetic Beads	04
4.Recombinant proteins	06
5.Medium	14
-AMMS® MSC Cell Culture Kit	15
-Serum-Free Media	17
-AMMS® CIK Cell Expansion Reagent & Medium Kit	18
-AMMS® NK Cell Culture Kit	19
-Lymphocyte Separation Medium	20
-Cryopreservation Medium	21

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01 ABOUT US

T&L Biotechnology Ltd. focuses on the research and development of GMP-grade upstream raw materials and reagents for cell and gene therapy (CGT). We are committed to providing comprehensive product and service solutions for CGT customers. Our products include cell separation and activation magnetic beads, eukaryotic and prokaryotic recombinant proteins, serum-free media, cell culture kits, and more.

We have a 3200m² research and development laboratory and a GMP-grade clean workshop, which includes platforms for cell separation magnetic bead development, eukaryotic and prokaryotic protein expression engineering, and serum-free media development. Our operations conform to both ISO13485 and ISO9001 Quality Management System Standards, and some of our products have been FDA DMF filed.









02 Quality Management Systems

- ISO9001 Certified Quality System
- ISO13485 Medical Device Quality Managemen System Certification





DMF Documentation Filed

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Catalog No.	Product Name	DMF Filing No.
GMP-TL101	Anti-Human CD3 Monoclonal Antibody	38125
GMP-TL102	Anti-Human CD28 Monoclonal Antibody	38820
GMP-TL506	Recombinant Human IL-7 Protein	38126
GMP-TL202	Recombinant Human IL-15 Protein	38127
GMP-TL509	Recombinant Human IL-21 Protein	39117
GMP-TL651	Recombinant Human Vitronectin Protein	39726
GMP-TL603	ActSep® CD3/CD28 Separation Activation Magnetic Beads	38124
GMP-TL622-5000	MaxSortin [™] CD3 Separation Magnetic Beads	39579
GMP-TL623-5000	MaxSortin [™] CD4 Separation Magnetic Beads	39625
GMP-TL624-5000	MaxSortin [™] CD8 Separation Magnetic Beads	39668
AS-13	AMMS® MSC Cell Culture Kit 2.0	35589
AS-22	AMMS® NK Cell Culture Kit 2.0	35588

GMP Production Workshop





GMP GRADE

03 Magnetic Beads



4.5µm ActSep® CD3/CD28 Separation & Activation Magnetic Beads



T-cell separation and activation in one

The ActSep® CD3/CD28 beads are specifically designed for the separation and activation of human CD3+T cells. These beads simplify the activation and expansion process by providing both primary and co-stimulatory signals needed for T cell activation without the need for antigen-presenting cells. This makes them ideal for applications in CAR-T and other T cell culture systems, ensuring high efficiency and reproducibility in your experiments.

Product Features

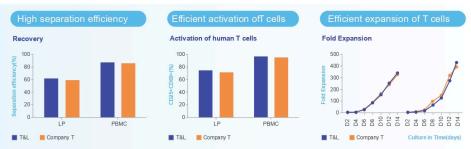


Figure 1. T cells were isolated from leukapheresis (LP) and peripheral blood mononuclear cell (PBMC) using ActSep®CD3/CD28 separation & activation magnetic beads at a ratio of 1:1 T-cell-to-beads(A), activation status of T cells after 48 hours of stimulation (B), and expansion in culture up to 14 days (C).

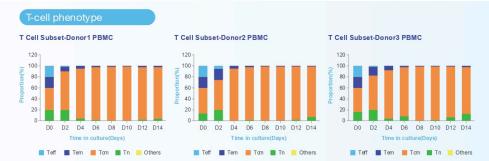
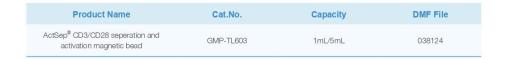


Figure 2. Changes in T cell phenotype. T cells were isolated from PBMC samples and cultured for 14 days using ActSep® CD3/CD28 separation & activation magnetic beads at a ratio of 1:1 T-cell-to-beads.



50nm Magnetic Beads

Our series includes beads like the CD4, CD8, and CD14, each designed for the efficient separation and enrichment of specific T cell subsets from peripheral blood mononuclear cells (PBMCs). The 50nm size ensures high specificity and efficiency, allowing for precise cell sorting and enrichment, which is crucial for downstream applications in immunology and cell therapy research.

Product Name	Grade	Model No.	Specification
T cell related products			
MaxSortin [™] CD3 Separation Magnetic Beads	RUO	TL-622	2mL
MaxSortin™ CD4 Separation Magnetic Beads	RUO	TL-623	2mL
MaxSortin [™] CD8 Separation Magnetic Beads	RUO	TL-624	2mL
MaxSortin [™] CD3 Separation Magnetic Beads	GMP	GMP-TL622-5000	5mL
MaxSortin [™] CD4 Separation Magnetic Beads	GMP	GMP-TL623-5000	5mL
MaxSortin [™] CD8 Separation Magnetic Beads	GMP	GMP-TL624-5000	5mL
Actcel T Cell Activation Reagent	RUO	TL-6001-1000	1ml
NK cell related products			
MaxSortin [™] CD3 Separation Magnetic Beads	RUO	TL-622	2mL
MaxSortin [™] CD3 Separation Magnetic Beads	GMP	GMP-TL622-5000	5mL
Monocyte related products			
MaxSortin™ CD14 Separation Magnetic Beads	RUO	TL-625	2mL
MaxSortin [™] CD14 Separation Magnetic Beads	GMP	GMP-TL625-2000	2mL
New Proudct Coming			
T cell sorting			
TCRVδ1 Separation Magnetic Beads			
TCRVαβ Separation Magnetic Beads			
TCRVγδ Separation Magnetic Beads			
Monocytes cells sorting			
CD14 Separation Magnetic Beads			
NK cell sorting			
CD56 Separation Magnetic Beads			
HSC cell sorting			
CD34 Separation Magnetic Beads			
Leukocytes cell sorting			
CD45 Separation Magnetic Beads			
Plasma cell sorting			
CD138 Separation Magnetic Beads			



Key Benefits of T&L Biotechnology's Magnetic Beads



High Efficiency

Our magnetic beads offer robust and efficient cell separation, ensuring high yield and purity.

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Versatility

Suitable for a wide range of applications, including cell therapy, immunology research, and more.



Customizability

We provide tailored solutions to meet specific research needs, ensuring that you have the right tools for your unique experiments.

Product Features

T cell Separation

Figure 3. T cell isolated from peripheral blood mononuclear cells (PBMC)using CD4 beads and CD8 beads. (A)RUO grade (B)GMP grade.





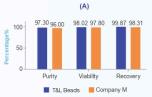




Figure 4. CD3*T cell isolated from peripheral blood mononuclear cells (PBMC)using CD3 beads(RUO grade). (A)Enrichment (B)Depletion.

Monocyte Separation

Figure 5. Monocyte isolated from peripheral blood mononuclear cells (PBMC) using CD14 beads. (A) Monocyte separation with column (B)Column-free sorting, using the MARS® Bar platform.





Sample preparation Cell preparation Cell activation ·TCell separation beads ·Separation&Activation ·NK cel separation beads magnetic beads ·Monocyte separation beads ·Monoclonal antibodies ·HSC separation beads ·Recombinant human cytokines Celexpansion Gene editing ·HEK293 serum-free medium ·MSC cell culture kit NK cell culture kit ·HEK293 supplementation medium ·Monoclonal antibodies Lot release and characterization Cryopreservation ·Flow cytometry kit ·Cell freezing medium

04 Recombinant proteins

Example of Tabular Format for Section on Commonly Used Recombinant Proteins

Protein Type	Examples	Function	Applications
Growth Factors	FGF, EGF, PDGF	Promote cell growth and differentiation	Wound healing, tissue engineering
Cytokines	IL-2, IL-12, TNF- α	Modulate immune responses	Cancer therapy, immune deficiency treatments
Chemokines	CCL, CXCL families	Guide cell migration	Inflammatory responses, immune cell trafficking
Stem Cell Factors	SCF, FLT3 ligand	Support stem cell maintenance and proliferation	Stem cell therapies, regenerative medicine







■ T&L Biotechnolgy Recombinant Proteins List

Category	Туре	Function
T cell related	products	
GMP-TL906	IL-2	Generate and maintain Treg cells to maintain autoimmunity Stimulate the proliferation of activated T cells and produce cytotoxic (CD8°) T cells
GMP-TL506	IL-7	Generation of naïve T cells and memory T cell subsets
GMP-TL202	IL-15	Stimulate the proliferation and activation of T cells
GMP-TL101	Anti-Human CD3 mAb	Antigen recognition, signal transduction and T cell activation
GMP-TL102	Anti-Human CD28 mAb	Induces T cell differentiation and proliferation
GMP-TL502	Anti-Human CD52 mAb	T cell activation and expansion
GMP-TL778	Anti-Human CD137 mAb	Induces T cell proliferation and cytokine secretion
NK cell relate	d products	
GMP-TL906	IL-2	Activate and maintain NK cells
GMP-TL506	IL-7	Promote the differentiation and proliferation of NK cells
GMP-TL508	IL-12	Induce NK cells and cytotoxic T cells to produce IFN- $\!\gamma$ and enhance cytotoxicity
GMP-TL202	IL-15	Maintain the persistence of NK cell effects
GMP-TL902	IL-18	Induced NK cell activity and NK cell subpopulation ratio
GMP-TL902	IL-21	Induces NK maturation, enhances its cytotoxicity, induces NK cells to secrete IFN-y, perforin, etc., and has a regulatory effect on NKT cells
GMP-TL112	Anti-Human CD52 mAb	Activation and expansion of NK cells
IPSC cell rela	ted products	
GMP-TL906	IL-2	Induce IPSC cells to differentiate into regulatory T cells (Treg)
GMP-TL511	IL-3	Induce IPSC cells to differentiate into macrophages and monocytes
GMP-TL613	EGF	Induce IPSC cells to differentiate into hepatocytes
GMP-TL644	PDGF-BB	Induce IPSC cells to differentiate into cardiomyocytes
GMP-TL505	FLT3 Ligand	Induce IPSC cells to differentiate into NK cells
CIK cell relate	ed products	
GMP-TL505	IL-2	Stimulate the proliferation and activation of CIK cells
GMP-TL105	IFN-γ	Co-stimulates CIK cytotoxicity with IL-2
B cell related	products	
GMP-TL112	Anti-Human CD20 mAb	Targeted induction of B cell apoptosis

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● TGF-B1	CD16mAb	II -4	TPO	I N511-F8	BMP-4	FPO

Category	Product Name	Source	Specification
GMP-TL906	Recombinant Human IL-2 Protein	E.coli	100μg
GMP-TL511	Recombinant Human IL-3 Protein	HEK293	50µg/100µg
GMP-TL512	Recombinant Human IL-6 Protein	HEK293	50μg/100μg
GMP-TL506	Recombinant Human IL-7 Protein	CHO	50μg/100μg
GMP-TL508	Recombinant Human IL-12 Protein	HEK293	50μg/100μg
GMP-TL202	Recombinant Human IL-15 Protein	HEK293	50μg/100μg
GMP-TL902	Recombinant Human IL-18 Protein	E.coli	50μg/1mg
GMP-TL509	Recombinant Human IL-21 Protein	CHO	50μg/100μg
GMP-TL105	Recombinant Human IFN-γ Protein	HEK293	200μg
GMP-TL302	Recombinant Human GM-CSF Protein	HEK293	100μg
GMP-TL903	Recombinant Human Fibronectin(FN) Protein	E.coli	50μg/250μg
GMP-TL303	Recombinant Human TNF α Protein	HEK293	100μg
GMP-TL901	Recombinant Human bFGF Protein	E.coli	50μg
GMP-TL612	Recombinant Human VEGF 165 Protein	HEK293	50μg/100μg
GMP-TL613	Recombinant Human EGF Protein	HEK293	50μg/100μg
GMP-TL505	Recombinant Human FLT3 Ligand Protein	HEK293	50μg
GMP-TL504	Recombinant Human SCF Protein	HEK293	50μg/100μg
GMP-TL644	Recombinant Human PDGF-BB Protein	HEK293	50μg/100μg
GMP-TL651	Recombinant Human Vitronectin Protein	HEK293	100µg
GMP-TL695	Recombinant Human 4-1BB Ligand Protein	HEK293	50μg/100μg
GMP-TL765	Recombinant Human HGF Protein	HEK293	100µg
GMP-TL646	Recombinant Human TGF-β3 Protein	HEK293	100μg
GMP-TL633	Recombinant Human LIF Protein	HEK293	100µg
GMP-TL101	Anti-human CD3 monoclonal antibody	/	500µg
GMP-TL102	Anti-human CD28 monoclonal antibody	/	500μg
GMP-TL502	Anti-human CD20 monoclonal antibody	/	500µg
GMP-TL112	Anti-human CD52 monoclonal antibody	/	100μg
GMP-TL778	Anti-human CD137 monoclonal antibody	/	100µg
GMP-TL107	OK432	/	50цд/100цд
TL-109-0010	Recombinant Human IL-1α Protein	E.coli	100μg
TL-513-0100	Recombinant Human IL-1ß Protein	E.coli	100µg
TL-514-0050	Recombinant Human M-CSF Protein	E.coli	10µg/50µg
TL-301-0100	Recombinant Human II -4 Protein	HFK293	100μg
TL-636	Recombinant Human EPO Protein	HEK293	50µg/100µg
TL-910-0050	Recombinant Human Activin A Protein	HEK293	10µg/50µg
TL-770-0050	Recombinant Human BDNF Protein	E.coli	50μg
TL-901-0010	Recombinant Human bFGF Protein	E.coli	10μg
TL-613-0010	Recombinant Human EGF Protein	HEK293	10µg
TL-782-0050	Recombinant Human FGF4 Protein	E.coli	50μg
TL-771-0050	Recombinant Human GDNF Protein	E.coli	50μg
TL-302-0010	Recombinant Human GM-CSF Protein	HEK293	10µg
TL-105-0010	Recombinant Human IFN-y Protein	HEK293	10μg
TI -642-0050	Recombinant Human Noggin Protein	CHO	50µg
TL-772-0050	Recombinant Human OSM Protein	HEK293	50μg
TL-504-0010	Recombinant Human SCF Protein	HEK293	10µg
554 5510	Recombinant Human TGF-B1 Protein	HEK293	10μg/50μg
TI -643			
TL-643			
TL-643 TL-303-0010 TL-783-0050	Recombinant Human TNF α Protein Recombinant Human Wnt3a Protein	HEK293 HEK293	10μg 50μg

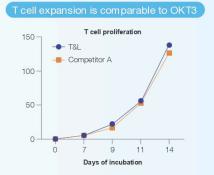


T cell — associated monoclonal antibodies

Anti-human CD3 monoclonal antibody (GMP-TL101) .

Customers have been used for IND (Acceptance No.: CXSL2200061 & CXSL2300290)

95.63



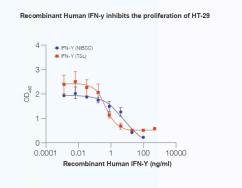
CIK cell - associated cytokines

100ng/ml

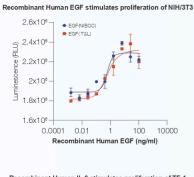
sample3

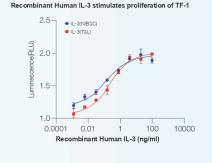
High biological activity and excellent batch stability

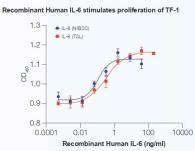
Recombinant Human IL-2 stimulates proliferation of CTLL-2

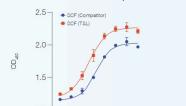


IPSC cell - associated cytokines









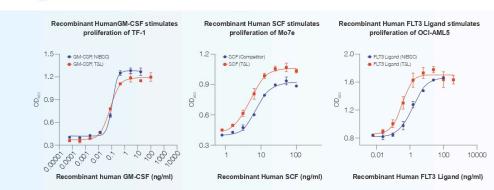
10

Recombinant Human SCF (ng/ml)

100

Recombinant Human SCF stimulates proliferation of Mo7e

HSC cell — associated cytokines





Production Process



Obtain the target gene through gene cloning or chemical synthesis, and insert the target gene into the open reading frame of the expression vector.



Choosing suitable hosts like bacteria, yeast, or mammalian cells.



Based on the physicochemical or biological properties of the target protein, utilize techniques such as affinity chromatography, ion exchange chromatography, gel filtration, etc., to extract and purify the target recombinant protein from host cells.



Commonly Used Recombinant Proteins in Cell Therapy

Growth Factors

- FGF (Fibroblast Growth Factor)
- EGF (Epidermal Growth Factor)
- PDGF (Platelet-Derived Growth Factor)

Cytokines

- IL-2 (Interleukin-2)
- IL-12 (Interleukin-12)
- TNF-α (Tumor Necrosis Factor-alpha)

Chemokines

- CCL and CXCL Families
- **Stem Cell Factors**
- SCF (Stem Cell Factor) FLT3 Ligand



Preparation and Quality Control of Recombinant Proteins



Large-Scale Production Techniques

The large-scale production of recombinant proteins is an important field in the biotechnology and pharmaceutical industries, involving the use of genetic engineering technology to produce proteins with specific functions on a large scale outside the body. By utilizing fermentation technology to control culture conditions such as temperature, pH, and nutrient supply, it is possible to achieve high-density growth of host cells and efficient expression of the target protein. Additionally, large-scale production in facilities that meet Good Manufacturing Practice (GMP) standards can meet commercial demands such as clinical treatment.





Low batch variability

Recombinant Human IL-7 stimulates proliferation of PBMC

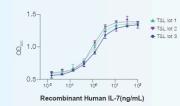


Figure 6. The GMP I-7 product has high batch-to-batch consistency.

Recombinant Human IL-15 stimulates proliferation of CTLL-2

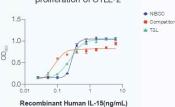


Figure 7. The specific activity of GMP IL-15 is >1x107 IU/mg.(NIBSC Code: 90 /530)

Quality control

SDS-PAGE purity > 95%



Endotoxins < 0.01 EU/µg

Host cell DNA residue < 50 ng/mg



Host cell protein residue < 100 ppm

Mycoplasma, sterility, foreign virus detection

Stability data

High batch-to-batch consistency



Stability and Storage Conditions

Maintaining stability through proper storage is essential for the efficacy of recombinant proteins.







Production Process



Obtain the target gene through gene cloning or chemical synthesis, and insert the target gene into the open reading frame of the expression vector.



Choosing suitable hosts like bacteria, yeast, or mammalian cells.



Based on the physicochemical or biological properties of the target protein, utilize techniques such as affinity chromatography, ion exchange chromatography, gel filtration, etc., to extract and purify the target recombinant protein from host cells.



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Cytokines

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- IL-12 (Interleukin-12)
- TNF-α (Tumor Necrosis Factor-alpha)

Chemokines

- CCL and CXCL Families
- **Stem Cell Factors**
- SCF (Stem Cell Factor) FLT3 Ligand



Preparation and Quality Control of Recombinant Proteins



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Recombinant Human IL-7 stimulates proliferation of PBMC

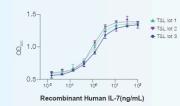


Figure 6. The GMP I-7 product has high batch-to-batch consistency.

Recombinant Human IL-15 stimulates proliferation of CTLL-2

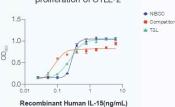


Figure 7. The specific activity of GMP IL-15 is >1x107 IU/mg.(NIBSC Code: 90 /530)

Quality control

SDS-PAGE purity > 95%



Endotoxins < 0.01 EU/µg

Host cell DNA residue < 50 ng/mg



Host cell protein residue < 100 ppm

Mycoplasma, sterility, foreign virus detection

Stability data

High batch-to-batch consistency



Stability and Storage Conditions

Maintaining stability through proper storage is essential for the efficacy of recombinant proteins.









Case Studies

Therapeutic Applications

therapeutic agents in the treatment of various diseases, such as cancer, autoimmune disorders, and genetic disorders. Examples include insulin for diabetes, growth factors for tissue repair, and monoclonal antibodies for targeted therapy.

Diagnostic Tools

employed in diagnostic tests, such as immunoassays and molecular diagnostics, for the detection of specific biomarkers or pathogens. They play a crucial role in accurate disease diagnosis and monitoring.

Vaccine Development

essential components of vaccines, where they can serve as antigens to stimulate the immune system to produce protective antibodies.

Research Tools

valuable research tools for studying protein structure, function, and interactions. They are used in basic research to elucidate disease mechanisms, drug targets, and pathways, enabling the discovery of

Forecast of Recombinant Proteins in Cell Therapy

The application prospects are very broad, covering various stages from basic research to clinical applications



Cell Culture and Differentiation



CAR-T Cell Therapy



Disease Modeling and Drug Screening



Discovery and Validation of Novel Targets -05

Direct Therapeutic Applications



Remodeling of Tumor Microenvironment



Standardization of Cell Therapy Products



Assistance in Gene Editing Technologies



Personalized Medicine

05 Medium

At T&L Biotechnology, we specialize in providing high-quality, GMP-grade cell culture media designed to meet the rigorous demands of modern research and clinical applications. Our products are developed through extensive research and are manufactured under strict quality controls to ensure consistency and reliability.





Product Name	Model No.	Specification	Storage Conditions	Quantity
MSC Cell Culture Kit				
AMMS [®] MSC Cell Culture Kit 2.0	AS-13	25mL	-20°C	1 bottle
AMMS® MSC Cell Culture Kit 2.0(Phenol Red Free)	AS-33	500mL	2-8°C	1 bottle
HEK293 Serum-Free Medium				
AMMS [®] HEK293 Serum-free Medium	AS-11	1000mL	Store at 2-8°C ,keep away from light	
AMMS [®] HEK293 Supplementation Medium	AS-18	100mL	Store at 2-8°C ,keep away from light	
CIK Cell Expansion Reagent & Medium Kit				
AMMS [®] CIK Cell Expansion Reagent & Medium Kit	AS-15	AMMS® CIK Cell Expansion Kit AMMS® CIK Serum-Free MediumX2		
Cell Culture Reagents				
Cell Cryopreservation Solution	AS-36	100mL		
Lymphocyte Separation Solution	AS-37	100mL		
cymphocyte separation solution	AS-37L-200	200mL		
AMMS® Recombinant Cell Digestive Solution	AS-39	100mL		
AMMS® Pluripotent Stem Cell Digestive Solution	AS-40	100mL		
AMMS® Organoid-specific Matrigel	AS-41-5	5mL		
New Proudct Coming				
Completed Products				
AMMS® Pluripotent Stem Cell Medium (iPSC)				
AMMS® Recombinant Cell Digestion Reagent				
AMMS® Pluripotent Stem Cell Digestion Reagent				
Research Stage Products				
Umbilical Cord Blood NK Reagent Kit				
NK-HY Medium				
T-HY Medium				



AMMS® MSC Cell Culture Kit



Tailored for mesenchymal stem cells, this kit supports robust growth and differentiation, crucial for regenerative medicine and cellular therapies.



70





Does not cause alien risk, high safety.accelerate the declaration process

Can be sold abroad, the safety and effectiveness of the product is guaranteed

Efficient cell expansion

Phenotypic and multidirectional differentiation characteristics were maintained while expansion

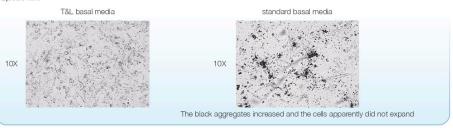
Product Name	Model No.	Specification	Storage Conditions	Quantity
MSC Cell Culture Kit				
AMMS® MSC Cell Culture Kit 2.0	AS-13	25mL	-20°C	1 bottle
AMMS® MSC Cell Culture Kit 2.0 (Phenol Red Free)	AS-33	500mL	2-8°C	1 bottle

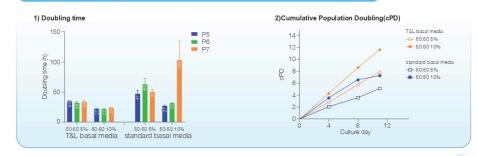






2)50:50 10%









AMMS® HEK293 Serum-Free Medium

Ideal for HEK293 cell culture, offering enhanced growth and viability without the complications of serum components.

Key Products and Features AMMS*HEK293 AMMS*HEK293 AMMS*HEK293 AMMS*HEK293

Serum-free Medium

Suitable for HEK293 suspension cells culture and transfection

Free of any animal components, without glutamine

Chemically defined, contains phenol red, contains glutamine

High cell density and viability

AMMS®HEK293 Supplementation Medium

Serum-free, animal component-free

Chemically defined, contains phenol red, contains glutamine

Maintains cell viability, enhances recombinant protein yield

AMMS®HEK293 Transfection Reagent

High transfection efficiency and high protein expression levels

Easy to operate, saving time

Highly efficient and stable with strict quality control

AMMS®HEK293 Cell Shake Flask Series

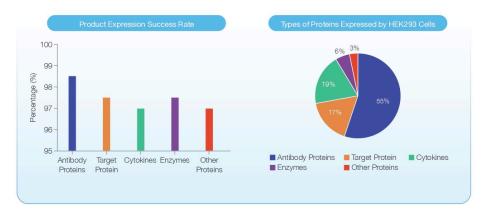
Available in various specifications with strict quality control

The highest level of sterile assurance, SAL=10^(-6)

Made of highly transparent polycarbonate material

Sterile, individually vacuum-packed

Product	Model No	Specification	Storage Conditions
AMMS [®] HEK293 Serum-free Medium	AS-11	1000mL	Store at $2\sim8^{\circ}\text{C}$, keep away from light
AMMS®HEK293 Supplementation Medium	AS-18	100mL	Store at $2\sim8^{\circ}\text{C}$, keep away from light





Specialized Media Kits

CIK cells are a type of cytokine-induced killer cells, obtained by co-culturing human peripheral blood mononuclear cells with various cytokines (such as anti-CD3 monoclonal antibody, interleukin-2, interferon-gamma, and interleukin-1alpha) in vitro for a period of time. These cells are a heterogeneous group that simultaneously express the membrane proteins CD3 and CD56, hence they are called NK cell-like T lymphocytes. They exhibit potent anti-tumor activity similar to T lymphocytes and non-MHC-restricted tumor-killing characteristics of NK cells, making them highly effective in a wide range of tumor treatments in clinical settings.

AMMS® CIK Cell Expansion Reagent & Medium Kit

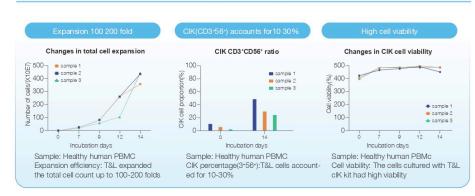
Specifically formulated for the expansion of cytokine-induced killer cells, facilitating cancer immunotherapy research.



No serum, no animal origin ingredients

The cell expansion is fast, the operation is simple, and the expansion fold is 100-200 times The phenotype was stable, and the CD3+CD56+ phenotype of cultured cells was high, accounting for 10-30%

Product Name	Model No	Storage Conditions
AMMS® CIK Cell Expansion Reagent & Medium Kit	AS-15	MMS [®] CIK Cell Expansion Kit AMMS [®] CIK Cell Expansion Kit AMMS [®] CIK Serum-Free Medium×2

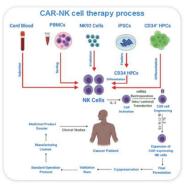






AMMS® NK Cell Culture Kit

Designed to optimize the growth and function of natural killer cells, supporting advances in immunotherapy.



- Improved safety profile: Lower likelihood of causing Cytokine Release Syndrome (CRS), Immune Effector Cell-Associated Neurotoxicity Syndrome (ICANS), and Graft-versus-Host Disease (GvHD).
- Diverse mechanisms of cell activation and tumor killing: CAR-NK cells do not express antigen-specific recognition receptors, do not depend on MHC molecules for activation, but integrate signals from activating and inhibitory receptors downstream.
- Feasibility of "off-the-shelf" preparation: CAR-NK cells can be produced as a universal "off-the-shelf" product due to their broader availability and better safety profile of allogeneic NK cells compared to CAR-T cells, addressing the current
- challenges of long production cycles and individualized needs of CAR-T products.

"

Therefore, CAR-NK cell therapy holds promise as an alternative to CAR-T cell therapy in the future.





Pure factor culture

Pure factor method (patent application),no feeder cells



No foreign animal sources

Free of antibiotics, serum, xenozoological origin, contains glutamine



Blood source

The blood sample can be PBMC Or UBMC



Outstanding expansion effect

Expansion 50-200 times NK(CD3·56+) accounts for 60-90%



Product Name	Model Number	Specification
AMMS [®] NK Cell Culture Kit	AS-22	${\sf AMMS}^{\sf S}{\sf NK}$ Cell Culture Reagent Kit ${\sf AMMS}^{\sf S}{\sf NK}$ Serum-Free Medium $\times 2$



DMF documentation filed

Lymphocyte Separation Medium



Product Introduction:

This product is a sterile ready-to-use working solution that utilizes the principle of density gradient centrifugation to separate and purify mononuclear cells (MNCs) from human anticoagulant blood samples. The isolated cells can be used for subsequent culture. This product is suitable for large-scale or small-scale purification operations and is compatible with various human sample types, including peripheral blood, umbilical cord blood, and bone marrow.

Key Products and Feature





Compatible with Multiple Samples

Suitable for a variety of human body samples such as peripheral blood, umbilical cord blood, and bone marrow.

Superior Usage Effect

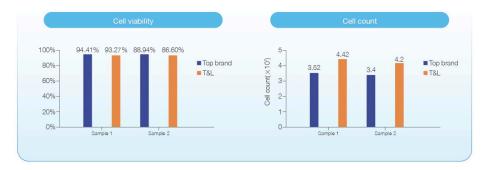
Significantly higher in cell recovery and viability compared to imported similar products.

Produced in a GMP Environment

All raw materials are injectable grade, and the product is manufactured under GMP conditions, ensuring reliable product safety performance.

Product Name	Catalog Number	Specification
Lymphocyte Separation Medium	AS-37	100mL/bottle

Experimental Data (Statistical Graph)





C

Cryopreservation Medium



Product Introduction:

This product is a ready-to-use cryopreservation medium for the low-temperature storage of cultured cells, suitable for the cryopreservation of various types of immune cells, such as T cells and NK cells, with NK cells showing good growth after cryopreservation.

Key Products and Features





No need to add additional DMSO

Chemically defined, free from xenogeneic components

Sterile, mycoplasma-free, and low endotoxin







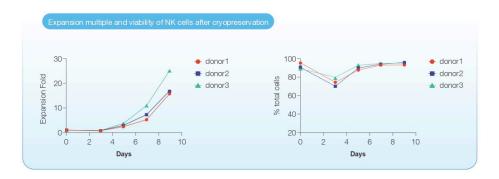
High-quality raw materials

Suitable for both serum-containing and serum-free cultured cells

Effective for the cryopreservation of human PBMCs, T cells, NK cells, and other immune cells

Product Name	Catalog Number	Specification
Cell Cryopreservation Medium	AS-36	100mL/bottle

Experimental Data (Statistical Graph)



Why Choose T&L Biotechnology?

Innovative Solutions

Our products are developed using cutting-edge technology to meet the evolving needs of the biotechnology and pharmaceutical industries.

High-Quality Standards

All our media are produced under GMP conditions, ensuring the highest quality and safety for your research and clinical applications.

Customizable Services

We offer tailored solutions to meet specific research needs, including custom media formulation and recombinant protein production.

What we can do

Offering affordable prices with shorter supply times for all of its products and services

- Capable of Investigational New Drug (IND) applications in clinical trials
- 24-hour technical support, staffed by experts in cellular research, is always ready to assist and engage in detailed discussions to meet specific client requirements
- Assisting over 40 biotech and biopharmaceutical partners globally with shorter lead times through some localized warehouse services
- 50% R&D and production team of its all staff members, with GMP B+A production
- New cell commercialization, with products holding DMF filings, while its production systems meet ISO certification standards

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