TRANSGEN BIOTECH

Serum Free Medium

Providing Innovative Reagents for Life Sciences Science 2006

Distributed by

CliniSciences

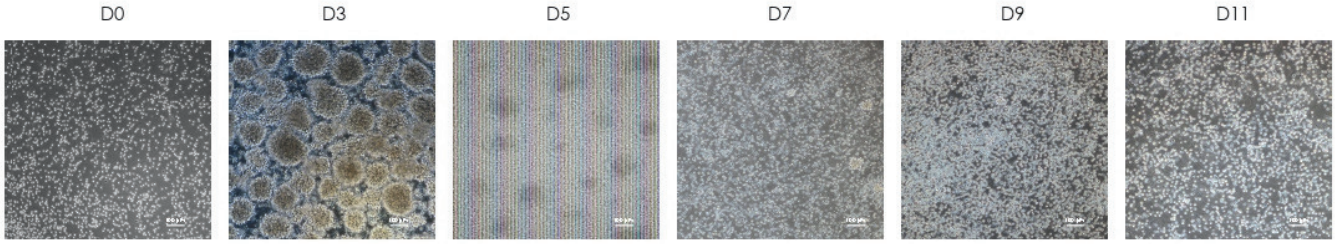
ArtMedia® Human T Cell Serum-Free Medium (GMP Grade, with/without phenolic red)

Features

- Independent research and development
- Serum-free and xeno-free medium
- Suitable for rapid expansion and high-density culture of T-cells
- Can be paired with a variety of T cells activation methods (antibody soluble method, antibody-coated method, magnetic bead conjugate antibody method)
- Production and management with GMP standards

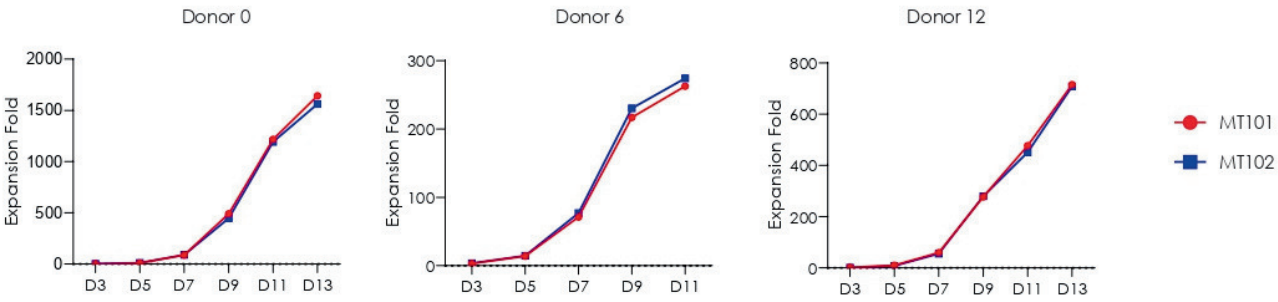
Experiment Data

Good T-cell Morphology

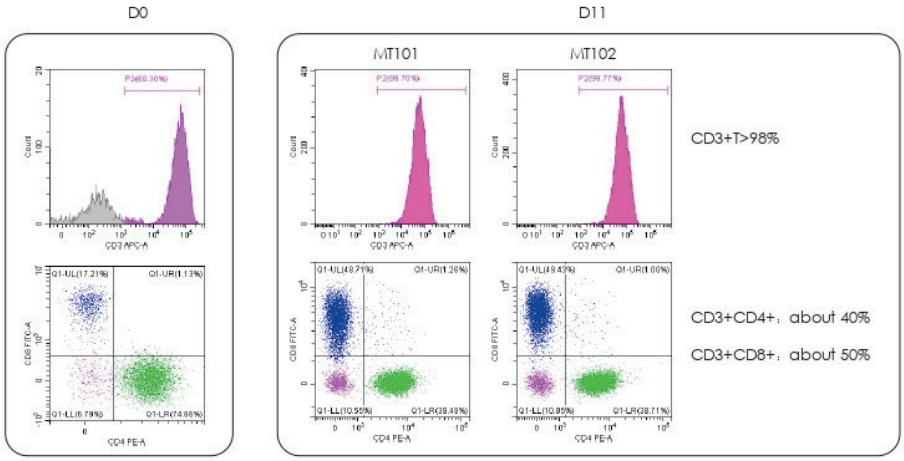


Scale: 100 μm

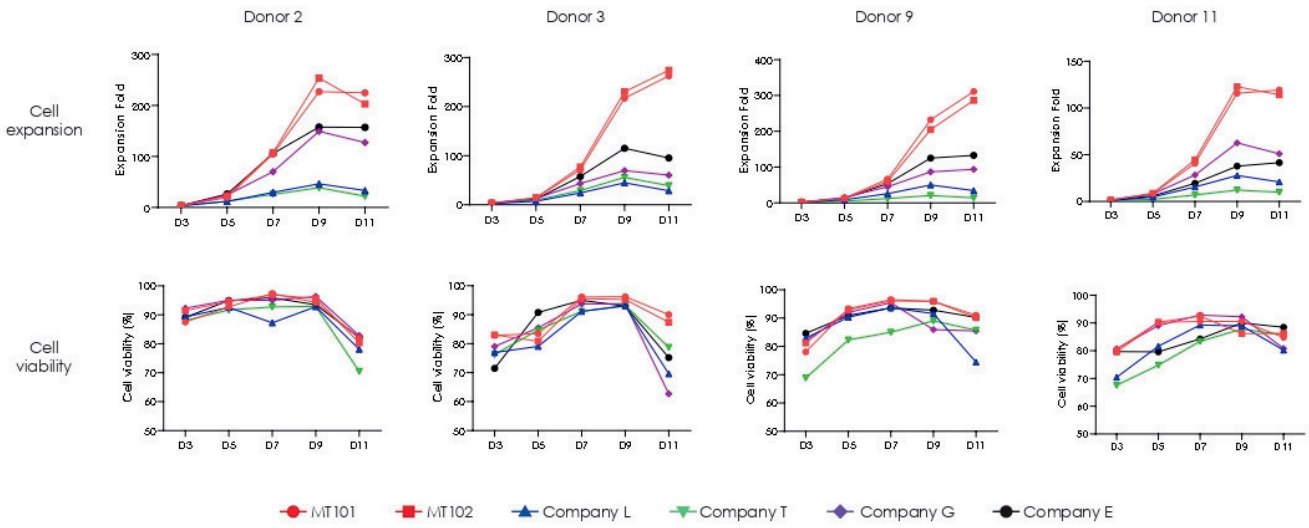
Supported robust and rapid expansion of T cells, resulting in a 200 to 300-fold increase over a continuous 11- to 13-day culture period.



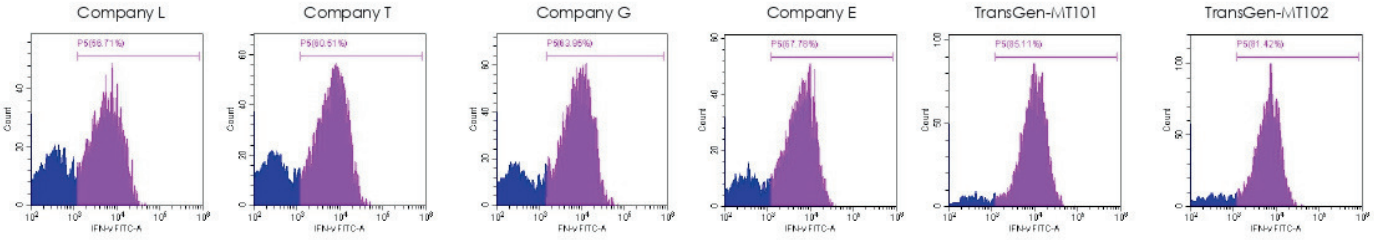
$CD3^+$ T cells comprised >98% of the population, and the proportion of $CD4^+CD8^+$ T cells was sustained.



Strong proliferation capacity, high cell viability



Enhanced IFN-γ Secretion and Tumor Killing



ArtMedia® Human NK Cell Serum-Free Expansion Kit (MK101)

Features

1. Safety and Stability

Xeno-Free & Chemically Defined: Contains no animal-derived components and has a fully defined chemical composition.

Serum-Free: Requires only a small amount of inactivated autologous plasma.

Cytokine Kit Format: A pure cytokine reagent kit; does not require the use of feeder cells.

Contains phenol red. Formulated without antibiotics.

2. Powerful Expansion Capability

After 14 days: Total cell count expands 100-250 fold; NK cell count expands 1,000-3,000 fold.

After 21 days: Total cell count expands 200-500 fold; NK cell count expands 3,000-8,000 fold.

3. High NK Cell Purity

After 14 days: Purity of $CD3^+CD56^+$ cells ≥ 90%; Purity of $CD3^+CD56^+CD16^+$ cells ≥ 85%.

After 21 days: Purity of $CD3^+CD56^+$ cells ≥ 95%; Purity of $CD3^+CD56^+CD16^+$ cells ≥ 90%.

4. Potent NK Cell Cytotoxicity

Demonstrates high tumor-killing activity against cancer cell lines.

5. Operational Excellence and Cost-Effectiveness

Simple & Scalable: Easy to use and highly suitable for industrial-scale production.

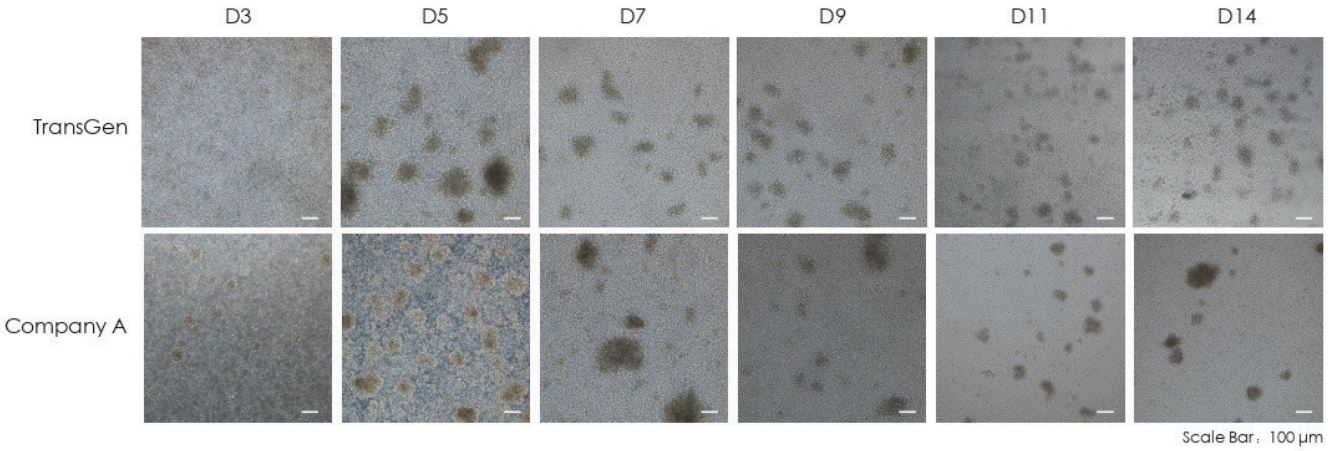
High Cost-Effectiveness: Offers superior performance at an optimized cost.

GMP Compliance: Manufactured and managed in accordance with GMP standards.

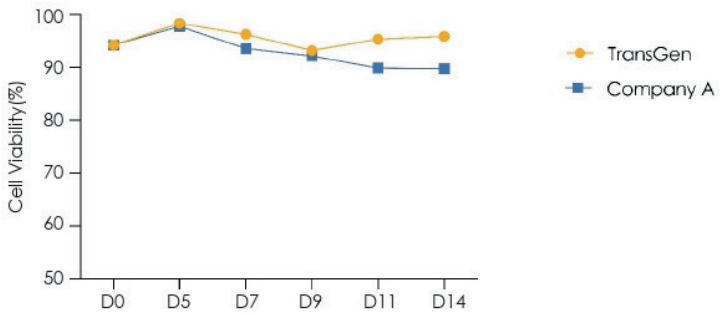
Experiment Data

20 mL fresh heparinized peripheral blood cultured in a 1 L culture system

Cell Morphology



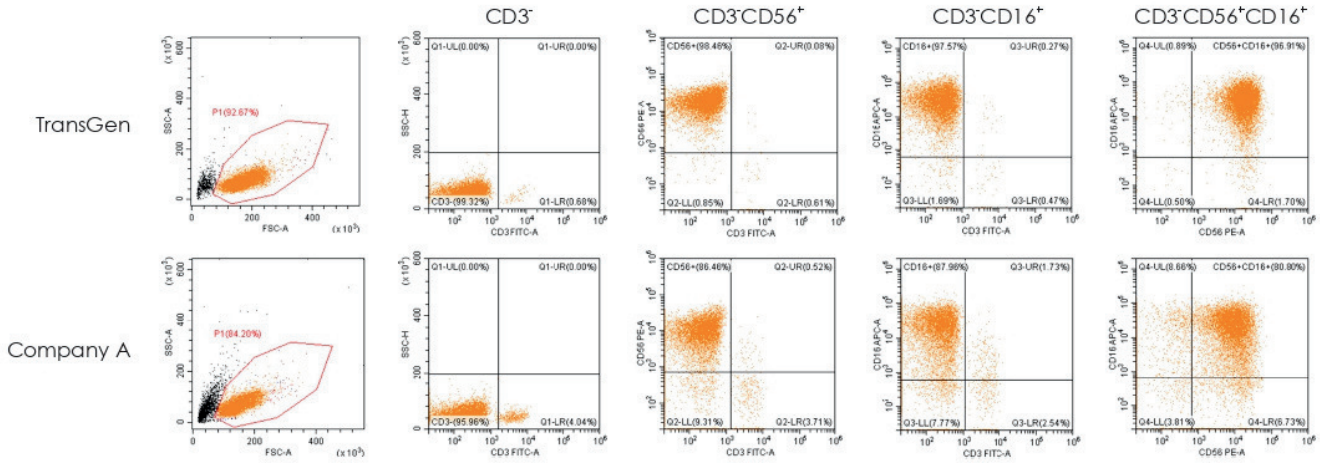
High Cell Viability



High fold expansion

Product Used	Time	Medium Volume (mL) (ml)	Cell Number($\times 10^7$ cells)	Total Cell Fold Expansion	NK Cell Fold Expansion
TransGen	D0	10	1.94	1	1
	D5	70	3.49	1.8	/
	D7	200	21	10.82	136.94
	D9	550	53.5	27.58	373.42
	D11	1000	95.8	49.38	684.89
	D14	1000	215.2	110.93	1569.18
Company A	D0	20	1.94	1	1
	D5	80	5.29	2.73	/
	D7	275	23.46	12.09	102.26
	D9	525	59.4	30.62	311.5
	D11	1000	124	63.92	745.86
	D14	1000	203.6	104.95	1303.71

High Purity

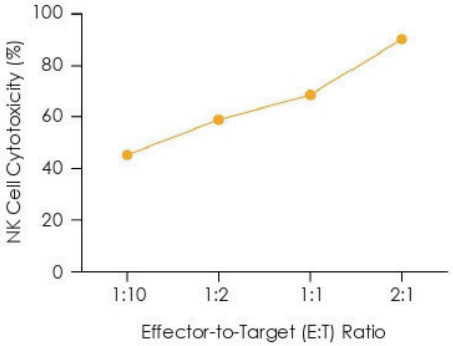


30 mL of fresh heparin-anticoagulated peripheral blood cultured in a 2 L system

High cell viability, high fold expansion, high purity

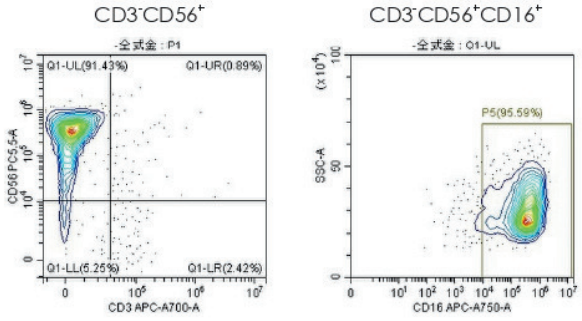
Time	Medium Volume (mL)	Cell Viability(%)	Cell Number($\times 10^7$ cells)	Total Cell Fold Expansion	NK Cell Fold Expansion	$CD3^-CD56^+$	$CD3^-CD16^+$	$CD3^-CD56^+CD16^+$
D0	20	91.89	3.6	1	1	10.02	10.64	8.97
D5	160	95	10.75	2.99	/	/	/	/
D7	500	95.74	62.61	17.39	146.98	84.68	54.74	51.95
D9	1200	92.83	195.6	54.33	496.48	91.56	87.41	86.25
D11	2000	91.84	408.8	113.56	1085.92	95.82	94.36	91.84
D14	2000	94.13	720	200	1973.85	98.89	96.76	96.15

Potent and Highly Efficient Killing Activity



30 mL fresh sodium citrate-anticoagulated umbilical cord blood

The 20-day culture yielded ~10 billion highly viable (>90%) and potently cytotoxic cells



14-Day Cultured NK Cell Purity

Distributed by

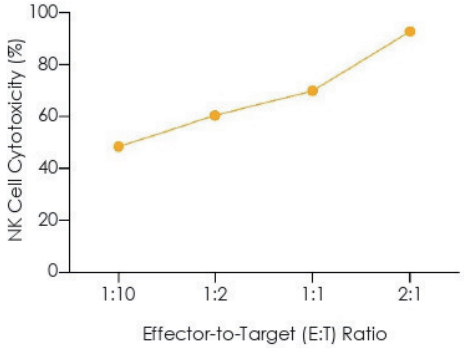
CliniSciences

Frozen PBMCs: 2.12×10^7 cells in 1 L culture system

High cell viability, high fold expansion, high purity

Time	Medium Volume (mL)	Cell Viability (%)	Cell Number (×10^7 cells)	Total Cell Fold Expansion	NK Cell Fold Expansion	CD3$^-$CD56$^+$	CD3$^-$CD16$^+$	CD3$^-$CD56$^+$CD16$^+$
D0	10	88.09	2.12	1	1	4.09	4.12	4.06
D5	70	95.56	4.17	1.97	/	/	/	/
D7	200	98.06	14.26	6.73	72.35	59.17	53.62	50.69
D9	550	98.27	60.64	28.6	389.95	71.91	70.19	70.97
D11	1000	92.16	127	59.91	1277.85	83.79	82.71	81.36
D14	1000	92.86	255	120.28	3018.77	95.31	95	95.02

Potent and Highly Efficient Killing Activity



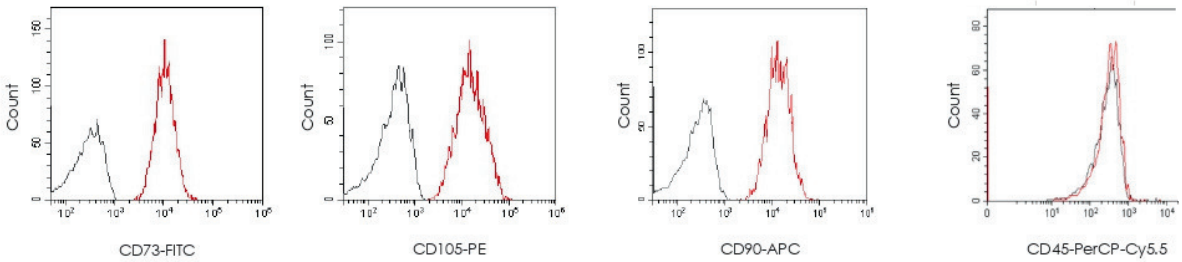
Human MSC Characterization Kit (HF001)

Features

- Staining was performed using a multicolor flow cytometry panel containing four antibodies: CD73, CD105, CD90, and CD45.
- The protocol is designed to minimize the number of cells required for the assay.
- The assay is highly specific, user-friendly, and suitable for the identification of MSCs from various tissue sources.

Experiment Data

Identification of Mesenchymal Stem Cell Surface Markers



TransStem® Chemically Defined Xeno-free Cell Cryopreservation Medium-Protein Free (MC102)

Features

- Safety: Serum-free, xeno-free, protein-free, chemically defined.
- High efficiency: Significantly enhances cell revival rates, with revival rates exceeding 90% for mesenchymal stem cells.
- Stability: Does not affect the phenotype and growth status of stem cells, while maintaining their multipotency.
- Convenience: Ready-to-use product, no need for programmed cooling, can be directly transferred to liquid nitrogen for long-term storage after overnight storage at -80°C.
- Reliability: Suitable for the cryopreservation of various cells, including stem cells, immune cells, tumor cells, etc.

Differences from traditional serum-containing cell cryo-preservation solutions

Differences	Traditional serum-containing cell cryopreservation solution	Serum-free, protein-free cell cryopreservation solution (containing DMSO)
Serum	Yes	No
Protein	Yes	No
Clear chemical composition	Uncertain	Certain
Cooling program	Require	Not required
Cryopreservation solution preparation	Use immediately after preparation	Ready to use, store at 4℃
Revival rate	Normal	Outstanding (support high concentration cryopreservation)
Difference between batches	High	Low
Risk of carrying virus	Yes	No
Applicable to clinical research	No, containing animal serum and protein	Yes, clear chemical composition, no animal-derived substances, protein-free

TransStem® Chemically Defined Xeno-free Cell Cryopreservation Medium III-DMSO Free, Protein Free (MC131) (Completely Using Pharmaceutical Grade Materials)

Features

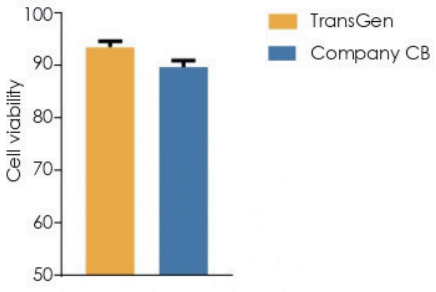
- Safety: Serum-free, xeno-free, protein-free, DMSO-free, clear chemical component, completely using pharmaceutical grade materials, with complete toxicity test.
- High efficiency: Effectively improves cell recovery viability, with over 90% recovery rate for most cells (including mesenchymal stem cells and immune cells).
- Stability: Does not affect stem cell phenotype and growth status, while maintaining stem cell pluripotency.
- Convenience: Ready-to-use product, no programmed cooling required, can be directly transferred to liquid nitrogen for long-term storage after overnight storage at -80°C.
- Reliability: Suitable for cryopreservation of various cells including stem cells, immune cells, tumor cells, and transformed cell lines.

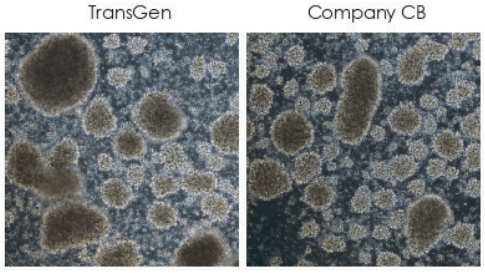
Data

Differences from traditional serum-containing cell cryopreservation solutions

Differences	Traditional serum-containing cell cryopreservation solution	Serum-free, protein-free, DMSO-free cell cryopreservation solution
Serum	Yes	No
Protein	Yes	No
DMSO	Yes	No
Clear chemical composition	Uncertain	Certain
Cooling program	Require	Not required
Cryo-preservation solution preparation	Use immediately after preparation	Ready to use, store at 4℃
Revival rate	Normal	Outstanding (support high concentration cryo-preservation)
Difference between batches	High	Extremely low
Risk of carrying virus	Yes	No
Apply for pharmaceutical excipients	Apply for pharmaceutical excipients	Apply for pharmaceutical excipients
Applicable to clinical research	No, containing animal serum and protein	Yes, clear chemical composition, xeno-free, protein-free

CD3+T cells cryopreservation





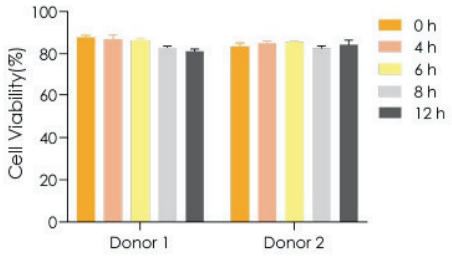
TransStem® Natural Killer Cell Cryopreservation Medium—Protein Free (MC105)

Features

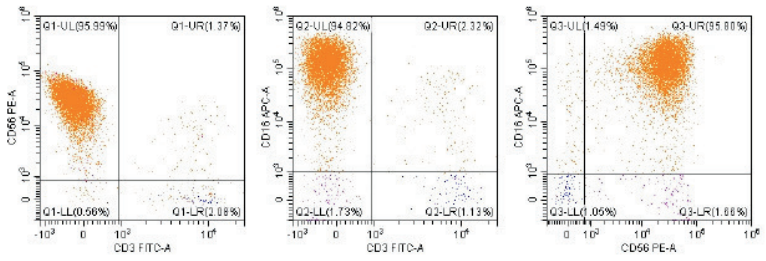
- Safety: Serum-Free, Animal-Component Free, Protein-Free, Chemically Defined, Pharmaceutical-Grade Ingredients, Ultra-Low Endotoxin, < 0.1 EU/mL.
- High efficiency: Effectively increases post-thaw cell viability and supports high-density NK cell cryopreservation. Validated for >85% viability and >80% recovery rate after 3 years of storage.
- Good Stability: minimize post-thaw apoptosis, ensuring sustained cell health and function after resuscitation.
- Ready-to-Use: Compatible with controlled rate freezing protocols and supports direct storage at -80°C.

Experiment Data

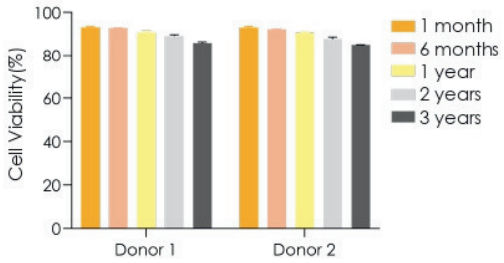
>80% Viability at 12h Post-Thaw



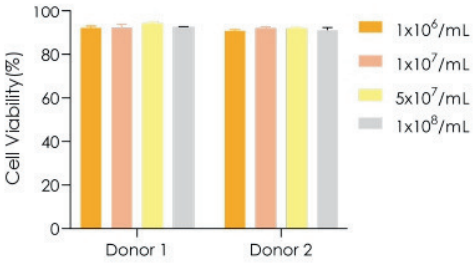
Normal Surface Marker Phenotype After 1-Year Cryopreservation



>85% Viability After 3 Years

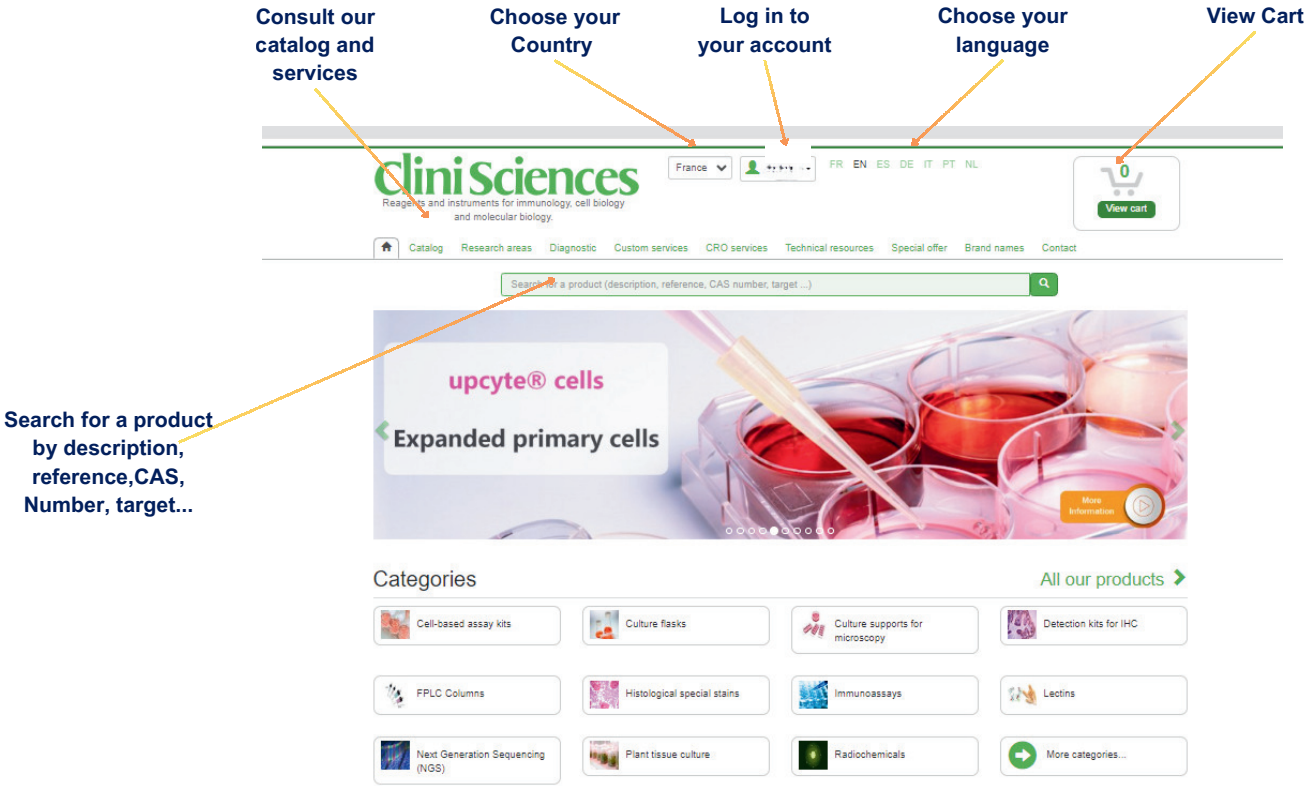


High-Density Cryopreservation Support

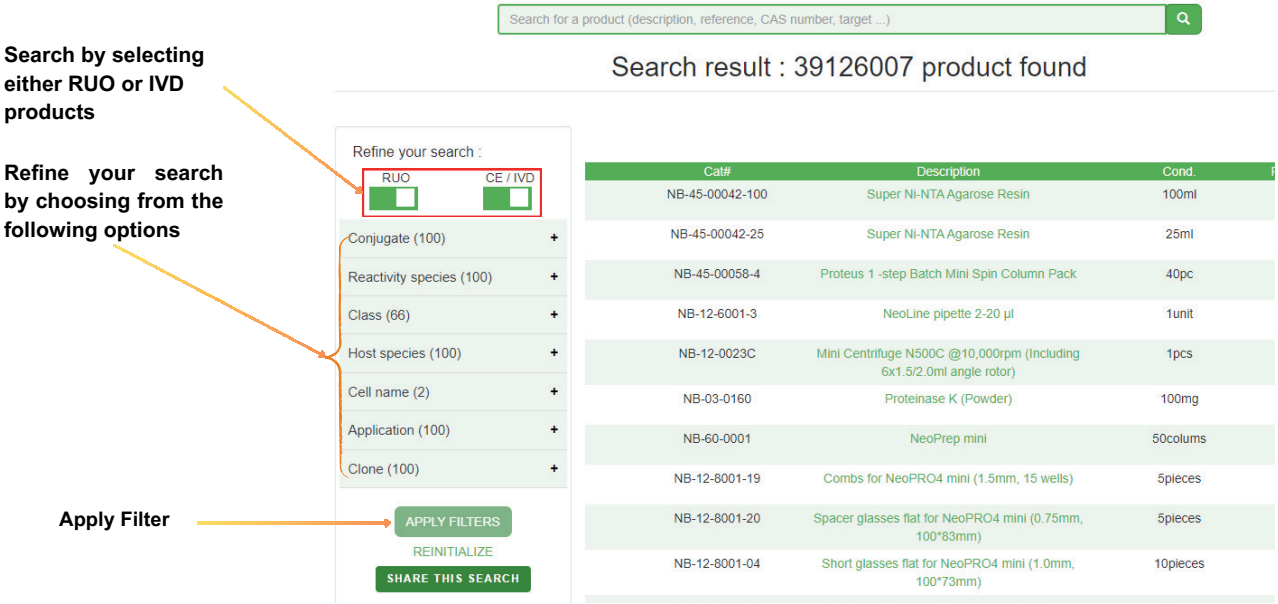


How to navigate through our website?

Homepage: When you first visit our website, you'll land on the homepage. This is where you can find an overview of our services, products, or any important announcements. From here, you can navigate to other sections of the website.



Search Bar: Look for specific Products and equipment



"Remember, if you ever get lost or have questions, don't hesitate to reach out to our customer support team. They're here to help you address any concerns you may have."

cliniSciences

Austria
Company: CliniSciences GmbH
Address: Sternwartestrasse 76, A-1180 Wien - Austria
Telephone: +43 720 115 580
Fax: +43 720 115 577
Email: oesterreich@clinisciences.com
Web: https://www.clinisciences.com

Belgium
Company: CliniSciences S.R.L
Address: Avenue Stalingrad 52, 1000 Brussels - Belgium
Telephone: +32 2 31 50 800
Fax: +32 2 31 50 801
Email: belgium@clinisciences.com
Web: https://www.clinisciences.com

Denmark
Company: CliniSciences ApS
Address: Oesterbrogade 226, st. 1, Copenhagen, 2100 - Denmark
Telephone: +45 89 888 349
Fax: +45 89 884 064
Email: danmark@clinisciences.com
Web: https://www.clinisciences.com

Finland
Company: CliniSciences ApS
Address: Oesterbrogade 226, st. 1, Copenhagen, 2100 - Denmark
Telephone: +45 89 888 349
Fax: +45 89 884 064
Email: suomi@clinisciences.com
Web: https://www.clinisciences.com

France
Company: CliniSciences S.A.S
Address: 74 Rue des Suisses, 92000 Nanterre- France
Telephone: +33 9 77 40 09 09
Fax: +33 9 77 40 10 11
Email: info@clinisciences.com
Web: https://www.clinisciences.com

Germany
Company: Biotrend Chemikalien GmbH
Address: Wilhelm-Mauser-Str. 41-43, 50827 Köln - Germany
Telephone: +49 221 9498 320
Fax: +49 221 9498 325
Email: info@biotrend.com
Web: https://www.biotrend.com

Iceland
Company: CliniSciences ApS
Address: Oesterbrogade 226, st. 1, Copenhagen, 2100 - Denmark
Telephone: +45 89 888 349
Fax: +45 89 884 064
Email: island@clinisciences.com
Web: https://www.clinisciences.com

Ireland
Company: CliniSciences Limited
Address: Ground Floor, 71 lower Baggot street Dublin D02 P593 - Ireland
Telephone: +353 1 6971 146
Fax: +353 1 6971 147
Email: ireland@clinisciences.com
Web: https://www.clinisciences.com

Italy
Company: CliniSciences S.r.l
Address: Via Maremmana inferiore 378 Roma 00012 Guidonia Montecelio - Italy
Telephone: +39 06 94 80 56 71
Fax: +39 06 94 80 00 21
Email: italia@clinisciences.com
Web: https://www.clinisciences.com

Netherlands
Company: CliniSciences B.V.
Address: Kraijenhoffstraat 137A, 1018RG Amsterdam, - Netherlands
Telephone: +31 85 2082 351
Fax: +31 85 2082 353
Email: nederland@clinisciences.com
Web: https://www.clinisciences.com

Norway
Company: CliniSciences AS
Address: c/o MerVerdi Munkerudtunet 10 1164 Oslo - Norway
Telephone: +47 21 988 882
Email: norge@clinisciences.com
Web: https://www.clinisciences.com

Poland
Company: CliniSciences sp.Z.o.o.
Address: ul. Rotmistrza Witolda Pileckiego 67 lok. 200 - 02-781 Warszawa -Poland
Telephone: +48 22 307 0535
Fax: +48 22 307 0532
Email: polska@clinisciences.com
Web: https://www.clinisciences.com

Portugal
Company: Quimigen Unipessoal LDA
Address: Rua Almada Negreiros, Lote 5, Loja 14, 2615-275 Alverca Do Ribatejo - Portugal
Telephone: +351 30 8808 050
Fax: +351 30 8808 052
Email: info@quimigen.com
Web: https://www.quimigen.pt

Spain
Company: CliniSciences Lab Solutions
Address: C/ Hermanos del Moral 13 (Bajo E), 28019, Madrid - Spain
Telephone: +34 916 750 700
Fax: +34 91 269 40 74
Email: espana@clinisciences.com
Web: https://www.clinisciences.com

Sweden
Company: CliniSciences ApS
Address: Oesterbrogade 226, st. 1, Copenhagen, 2100 - Denmark
Telephone: +45 89 888 349
Fax: +45 89 884 064
Email: sverige@clinisciences.com
Web: https://www.clinisciences.com

Switzerland
Company: CliniSciences AG
Address: Fracht Ost Flughafen Kloten CH-8058 Zürich - Switzerland
Telephone: +41 (044) 805 76 81
Fax: +41 (044) 805 76 75
Email: switzerland@clinisciences.com
Web: https://www.clinisciences.com

UK
Company: CliniSciences Limited
Address: 11 Progress Business center, Whittle Parkway, SL1 6DQ Slough- United Kingdom
Telephone: +44 (0)1753 866 511
or +44 (0) 330 684 0982
Fax: +44 (0)1753 208 899
Email: uk@clinisciences.com
IWeb: https://www.clinisciences.com

USA
Company: CliniSciences LLC
Address: c/o Carr Riggs Ingram, 500 Grand Boulevard, Suite 210 Miramar Beach, FL 32550- USA
Telephone: +1 850 650 7790
Fax: +1 850 650 4383
Email: usa@clinisciences.com
Web: https://www.clinisciences.com

Version 27-10-2025