

HIPP-T009 Lymphocyte Serum-free Media

Completely serum-free media specially designed to promote the in vitro culture of lymphocytes

The founding team of BioEngine started the study of in vitro culture of lymphocytes in the 1990s and had made great scientific achievements in this area. For prospective clinical application, R&D team of BioEngine initiated the design and development of serum-free media for culturing of lymphocytes in vitro in 2015, and successfully obtained a completely serum-free medium formulation in 2018 which was launched with the name of *HIPP-T009* in the same year. In 2020, *HIPP-T009* became the first homegrown culture medium product used in cell therapy clinical trials in China.

HIPP-T009 is an ideal choice for large-scale culture of lymphocytes. It demonstrates not only excellent performance on cell expansion and functional expression but also ensures high safety and stability of the culture process since no serum or other serum substitutes are needed in the culturing system. As *HIPP-T009* contains no exogenous cytokines or activators, corresponding cytokines or activators should be added if necessary.

Features

- Xeno-free, contains no growth factors, synthetic activators, or undefined components
- Universality and flexibility: Applicable for the culture of T-cell, NK cell, CAR-T, CIK, CAR-NK-92, hematopoietic stem cells and other types of cell lines (NK-92, NK-92MI, K562, Jurkat, etc.)
- High performance in cell expansion and high-density culture under completely serum-free condition



HIPP-T009 Lymphocyte Serum-free Media

Advantages

- No need to add serum, plasma, or serum substitutes, hence it minimizes batch-to-batch variation in the culture process and simplifies the declaration process for IND/NDA applications.
- The 1st approved Chinese culture medium used in cell therapy clinical trials.
- Manufactured under the cGMP guidelines and ISO13485 quality system, meet regulatory requirements in different countries.
- Innovative “2 domestic+1 imported” raw material supplier modal ensures a stable supply chain to face the fluctuations and uncertainty in the raw material market.
- The comprehensive set of DMR documents for audit.

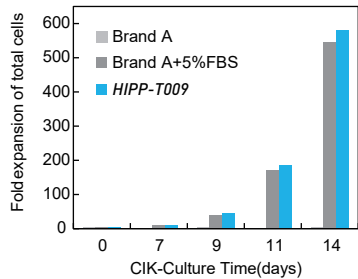
Ordering Information

Product Name	Cat. NO.	Form	Size	Package	Grade
HIPP-T009 Lymphocyte Serum-free Medium	EXP0103801	Liquid(no phenol red)	1L	Bottle	GMP
	EXP0101302	Liquid(with phenol red)	1L	Bottle	Research

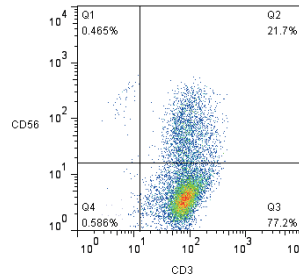
Performance

CIK cell culture

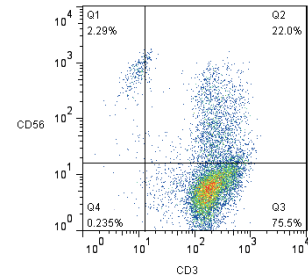
Without adding any serum, the expansion fold of CIK cells during 14 days of culture in a completely serum-free *HIPP-T009* medium was significantly higher than that of global Brand A. Even compared with global Brand A with 5% serum added, CIK cell expansion fold and phenotype (CD3+CD56+) in completely serum-free *HIPP-T009* are still higher (see below).



CIK cell expansion fold during 14 days of culture



Proportion of CD3+CD56+ cells in Brand A+5% FBS

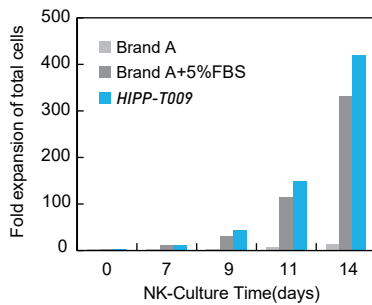


Proportion of CD3+CD56+ cells in *HIPP-T009*

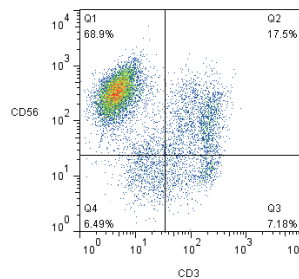
HIPP-T009 supports the efficient expansion and directed differentiation of CIK cells, which is comparable to the performance of Brand A supplemented with serum

NK cell culture(With Feeder)

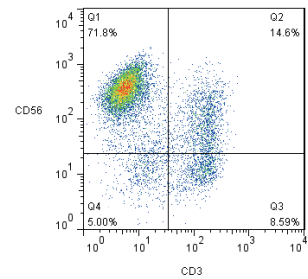
Without adding any serum, the expansion performance of NK cells in the completely serum-free *HIPP-T009* for 14 days was significantly higher than that of global Brand A. Even compared with global Brand A with 5% serum added, NK cell expansion fold and phenotype (CD3-CD56+) in completely serum-free *HIPP-T009* are still higher (see below).



NK cell expansion fold during 14 days of culture



Proportion of CD3-CD56+ cells in Brand A +5% FBS

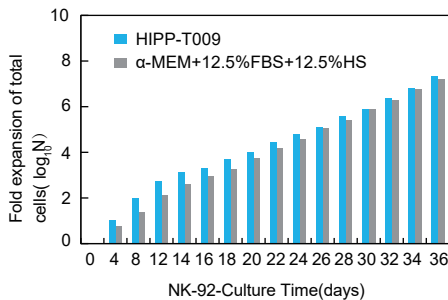


Proportion of CD3-CD56+ cells in *HIPP-T009*

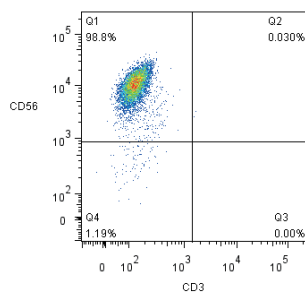
HIPP-T009 supports the efficient expansion and directed differentiation of NK cells, which is comparable to the performance of Brand A supplemented with serum.

NK-92 cell culture

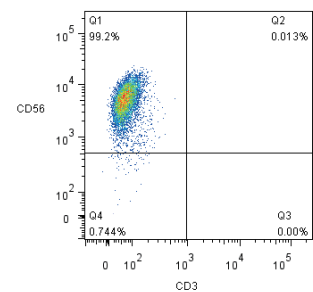
Under the same conditions, when cultured in completely serum-free *HIPP-T009* for 36 days, the expansion fold and CD3-CD56+ phenotype of NK-92 cells were higher than those in α -MEM supplemented with 12.5% horse serum and 12.5% fetal bovine serum (see below).



NK-92 cell expansion fold during 36 days of culture



Proportion of CD3-CD56+ cells in α -MEM+12.5%FBS+12.5%HS



Proportion of CD3-CD56+ cells in *HIPP-T009*

HIPP-T009 supports the efficient expansion of NK-92 cells and maintains the CD3-CD56+ phenotype without loss, which is better than the performance of α -MEM+12.5% FBS+12.5% HS

30 years of ingenuity on creating a novel drive for cell culture



BioEngine Official Website

Add.: Floor 5, Building 1, Lane 720, Cailun Road, Zhangjiang Hi-Tech Park, Pudong, Shanghai, PRC

Tel.: (86)21-68582660

Web.: www.bio-engine.com.cn

E-mail: marketing@bio-engine.com.cn