

OptiVibro® NK Cell Expansion Serum-Free Basic Kit P01 & NE01

Defined medium system for expansion of activated NK cells

Xeno-free | Serum-free | Scalable culture workflow

Product overview

OptiVibro® NK Cell Expansion Serum-Free Basic Kit P01 and NE01 are designed for robust expansion and culture of activated human natural killer (NK) cells for cell therapy research, process development, and manufacturing workflows. The xeno-free system pairs NK Cell Serum-Free Basal Medium P01 with Supplement UE01 and Cytokine III to support NK cell proliferation under serum-free conditions.

Key features

- Xeno-free, serum-free culture system formulated without animal-derived components.
- Designed primarily for expansion of activated NK cells and compatible with alternative NK-cell activation methods.
- Supports NK cells derived from PBMC, cord blood mononuclear cells, iPSC differentiation, and established NK cell lines such as NK-92.
- Designed for efficient NK-cell expansion, with functional cells typically generated within a 14-day culture workflow under appropriate conditions.
- Sterile-filtered medium components and temperature-specific storage guidance for reliable handling.

Typical applications

Expansion of activated human NK cells for immunotherapy research, cell and gene therapy process development, assay development, and non-clinical manufacturing workflows.

GENERAL CULTURE GUIDANCE Prepare complete expansion medium using the supplied basal medium, Supplement UE01, and Cytokine III. Activate NK cells using a validated activation method before expansion. Optimize the cell source, seeding density, plasma or serum substitute, and scale-up approach for the intended process. Refer to the applicable product user manual for detailed instructions.

General product characteristics

Parameter	General characteristic
Classification	Serum-free, xeno-free NK cell expansion medium system
Product type	Basic kit for expansion of activated NK cells
Compatible cell sources	PBMC, cord blood mononuclear cells, iPSC-derived NK cells, and suitable NK cell lines
Core components	NK Cell Serum-Free Basal Medium P01, Supplement UE01, and Cytokine III
Cell type	Human natural killer (NK) cells
Form	Liquid medium with supplemental and cytokine components
Intended use	Research and manufacturing use only; not intended for diagnostic or therapeutic use

PRODUCT INFORMATION

Ordering, storage and use

Product configurations

Catalog No.	Product name	Size
NE000-N031	OptiVibro® NK Cell Expansion Serum-Free Basic Kit P01	500 mL kit
NE000-N032	OptiVibro® NK Cell Expansion Serum-Free Basic Kit P01	1,000 mL kit
NE01	OptiVibro® NK Cell Expansion Serum-Free Basic Kit configuration	Contact LLT

Catalog availability, configuration, and pack sizes should be confirmed at the time of order.

Typical kit contents

Component	Function	Storage
NK Cell Serum-Free Basal Medium P01	Foundational medium for NK cell culture and expansion.	2-8°C; protect from light
Immune Cell Serum-Free Medium Supplement UE01	Adds essential nutrients to complete the basal medium.	2-8°C; protect from light
Cytokine III	Supports NK cell proliferation in the complete expansion medium.	-20°C; protect from light

Storage, transport and shelf life

Store basal medium and supplement at 2-8°C, protected from light. Store cytokine components at -20°C, protected from light. Transport basal medium and supplement below 25°C and cytokines below 0°C, with protection from light. Refer to the product label for component-specific shelf life and expiration date.

General handling recommendations

- Protect medium and cytokine components from prolonged exposure to ambient and fluorescent light.
- Thaw Cytokine III at room temperature immediately before use; avoid prolonged exposure to air after opening.
- Prepare complete medium aseptically in a biosafety cabinet according to the applicable user manual.
- Use complete medium within the stated in-use period after preparation.
- Do not use UV irradiation to sterilize the product or its packaging.

PREPARATION PRINCIPLE Equilibrate Basal Medium P01 and Supplement UE01 to room temperature. Add Supplement UE01 to the basal medium and mix gently. Add the designated Cytokine III volume according to the applicable user manual to prepare NK cell expansion medium. Use only with a validated NK-cell activation approach.

Quality and intended use

OptiVibro® products are manufactured under applicable quality systems. This datasheet provides general product information and does not replace the product label, user manual, Certificate of Analysis, or Safety Data Sheet. For research and manufacturing use only. Not intended for diagnostic or therapeutic use.