**LLT** LEADING LIFE TECHNOLOGIES
CELL CULTURE / CHO EXPRESSION SUPPLEMENT

# OptiVitro® Protein Expression Enhancer

Chemically defined supplement for CHO protein-expression workflows

**Animal-origin-free | Protein-free | Liquid format**

## Product overview

OptiVitro® Protein Expression Enhancer is a chemically defined, animal-origin-free liquid additive developed to increase protein expression in CHO transient-transfection workflows. It is designed for use with OptiVitro® CHO Serum-free Basal Medium TransExp CE06 and OptiVitro® CHO Serum-free Feed Medium TransExp CA06, and may also be evaluated in stable-transfected CHO fed-batch processes.

### Key features

- Animal-origin-free, protein-free, serum-free, and chemically defined liquid supplement.
- Designed to support enhanced recombinant protein expression in CHO transient transfection.
- Recommended with the TransExp CE06 basal-medium and TransExp CA06 feed-medium system.
- May be evaluated for protein-expression enhancement in stable-transfected CHO fed-batch cultures.

### Typical applications

Transient expression of recombinant proteins using CHO suspension cell lines, including CHO-K1, CHO-DG44, and CHO-S; process development for stable-transfected CHO fed-batch culture.

**GENERAL USE GUIDANCE** For transient expression, add on Day 1 according to the TransExp CE06 protocol; a 0.1% initial-culture-volume addition is a practical starting point. For stable-transfected CHO fed-batch culture, add on Day 5 at 1 mL/L as a starting condition. Optimize by cell line and process.

## General product characteristics

| Parameter | General characteristic |
|---|---|
| **Classification** | Chemically defined, serum-free, protein-free, animal-origin-free |
| **Product type** | CHO protein-expression enhancer |
| **Compatible cell lines** | CHO-K1, CHO-DG44, CHO-S, and other suitable CHO cell lines |
| **Form** | Liquid |
| **Recommended system** | TransExp CE06 basal medium with TransExp CA06 feed medium |
| **Storage** | 2-8°C; protect from light |
| **Transport** | Below 25°C; protect from light |
| **Shelf life** | 12 months. See product label for expiry. |

*Note: General information is shown. Product label and lot-specific Certificate of Analysis govern release.*

PRODUCT INFORMATION

# Ordering, storage and use

## Ordering information

| Catalog No. | Product name | Size |
|---|---|---|
| **M101412C** | OptiVitro® Protein Expression Enhancer | 1 mL liquid |
| **M101413C** | OptiVitro® Protein Expression Enhancer | 5 mL liquid |

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

## Storage, transport and shelf life

**Storage.** Store at 2-8°C and protect from light.

**Transportation.** Maintain below 25°C and protect from light during transport.

**Shelf life.** 12 months when stored as directed. Confirm the labeled expiration date before use.

### Use guidance

1. For transient transfection, follow the current TransExp CE06 protocol and use with TransExp CA06 feed medium.
2. Add on Day 1 at a starting addition of 0.1% of the initial culture volume.
3. For example, a 20 mL initial culture uses a 0.02 mL starting addition.
4. For stable-transfected CHO fed-batch culture, add on Day 5 at a starting addition of 1 mL/L.
5. Conduct cell-line-specific gradient studies to establish the optimum addition amount and timing.

**NOTE** These are general starting points only. Follow the product label and applicable protocol, and verify performance for the selected process.

### Application starting points

Assess the enhancer within a controlled process-development study. Evaluate protein yield together with viable-cell performance and relevant product-quality attributes.

| Application | Timing | Starting point / action |
|---|---|---|
| **Transient expression** | Day 1 | 0.1% initial culture volume; use TransExp CE06/CA06 |
| **Stable CHO expression** | Day 5 | 1 mL/L starting addition; perform gradient optimization |
| **Process development** | As designed | Confirm yield, viability, and product-quality response |

**OPTIMIZATION** Protein-yield response can vary by cell line and process conditions. Use well-controlled gradient studies to define the optimal addition amount and timing.

**INTENDED USE** For research and manufacturing use only. Not intended for diagnostic or therapeutic use. This general datasheet does not replace the product label, user manual, Certificate of Analysis, or Safety Data Sheet.