LLT LEADING LIFE TECHNOLOGIES
CELL CULTURE / CELL DISSOCIATION REAGENTS

OptiVitro® Recombinant Trypsin Digestive Solution RF01

Defined, animal-origin-free cell dissociation reagent for gentle stem-cell passaging

Animal-origin-free | Defined composition | High cell viability

Product overview

OptiVitro® Recombinant Trypsin Digestive Solution RF01 is a defined cell dissociation reagent designed for gentle detachment with low cellular damage and high viability. Free of animal-derived components, it is suitable for dissociation and passaging of mesenchymal stem cells (MSCs) in serum-free culture systems and for other stem-cell preparation applications.

RF01 may be used as an alternative to conventional trypsin. It specifically cleaves peptide bonds at the C-terminus of lysine and arginine, reducing proteins involved in cell-cell adhesion so cells disperse and detach from the culture surface. Activity may be reduced by dilution or cell washing; a trypsin neutralization solution is not required for passaging.

Key features

- Defined composition and free of animal-derived components.
- Gentle cell detachment designed to support high viability.
- Suitable for MSC dissociation and passaging in serum-free culture systems.
- Can be inactivated by dilution or washing; no dedicated neutralization solution required.

Typical applications

Dissociation and passaging of adherent mesenchymal stem cells and other suitable stem-cell preparations in research, process development, and commercial manufacturing workflows.

> GENERAL USE GUIDANCE Pre-warm RF01 and complete culture medium to 37 °C before use. Determine incubation time for the specific cell type and culture format. Monitor cell detachment microscopically.

General product characteristics

Parameter	General characteristic
Classification	Defined, animal-origin-free recombinant enzyme-based cell dissociation reagent
Product type	Recombinant trypsin digestive / dissociation solution
Compatible applications	MSC serum-free culture passaging and other suitable stem-cell preparation workflows
Mode of action	Cleaves peptide bonds at the C-terminus of lysine and arginine to reduce cell-cell adhesion
Inactivation	Dilution or cell washing; no trypsin neutralization solution required
Storage	2-8 °C; protect from light
Transport	Below 25 °C; protect from light
Shelf life	18 months when stored as directed; 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
RF000-N031	OptiVitro® Recombinant Trypsin Digestive Solution RF01	200 mL
RF000-N031S	OptiVitro® Recombinant Trypsin Digestive Solution RF01 (Trial Size)	50 mL

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

Storage, transport and handling

Storage. Store at 2-8 °C and protect from light. Avoid exposure to fluorescent lamps and other light sources; opaque packaging is recommended for refrigerator or warehouse storage.

Transport. Transport below 25 °C and protect from light. Avoid sunlight or other light exposure, which may affect product appearance and cause discoloration.

Clean-area transfer. When moving the product into a clean area, use disinfectant wiping only. Do not use ultraviolet sterilization. Switch off UV lamps when passing through a transfer window equipped with UV light.

Shelf life. 18 months when stored as directed. Confirm the labeled expiration date before use.

Starter dissociation guidance

1. Pre-warm RF01 and complete growth medium to 37 °C.

2. Aspirate culture medium and rinse cells once with 10 mL PBS per T-175 culture flask.

3. Aspirate PBS, add 6 mL RF01 per T-175 flask, and incubate at 37 °C for 3-5 minutes. Observe microscopically until more than 80% of cells have detached. Gently tap the flask if needed.

4. Dilute with an equal volume of culture supernatant, complete medium, PBS, or equivalent. Collect the cell suspension and gently pipette to disperse cells.

5. Centrifuge at 300 × g for 5 minutes. Discard supernatant, resuspend in pre-warmed complete medium at the desired seeding density, and continue culture under standard conditions for the cell type.

> INTENDED USE For research and commercial 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.