

Active Recombinant trypsin similar

Cat. No. trypsin-28 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant trypsin similar is derived from microorganisms, obtained through microbial fermentation and prepared via sterile filtration. It is manufactured in an environment compliant with GMP regulations, with no animal-derived raw materials added during the production process, ensuring extremely high biosafety. Characterized by gentler digestion and low cytotoxicity, it is particularly suitable for the digestion of sensitive cells, such as organoids and stem cells. pH: 7.2-7.5 Osmolarity: 270-320 mOsm/kg Mycoplasma assay: Negative Microbiological assay: Negative
Source	Microorganism
Description	This product is a microbial-derived trypsin analog that recognizes lysine or arginine residues and cleaves at their C-termini. It is free of animal-derived components and animal-sourced viruses (e.g., swine influenza virus, porcine parvovirus). Inherently devoid of chymotrypsin activity, it serves as a safe and effective substitute for porcine or bovine trypsin. The enzyme acts gently on cells during digestion, exhibits stable enzymatic activity, and is easy to store.
Bio-activity	≥ 750 USP U/mL
Endotoxin	< 1.0 EU/mL
Usage	1. Pre-warm Recombinant trypsin similar and complete medium at 37 centigrade before use. 2. Discard the supernatant of the culture medium. Wash the cells with an

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appropriate amount of DPBS, and then discard the DPBS. 3. Add an appropriate amount of Recombinant trypsin similar (0.5 mL per 10 cm²) and incubate at 37 centigrade until the cells detach. 4. Add 5-10 mL of pre-warmed complete medium, gently mix the cells, transfer the cell suspension to a sterile 15 mL centrifuge tube, and centrifuge at 100 g for 5-10 minutes. 5. Discard the supernatant and add an appropriate amount of complete medium for cell culture.

Applications

Dissociation of adherent cells

Note

1. Try to avoid freeze-thaw cycles of this product after receipt; 2. Please wear lab coat and disposable gloves when using; 3. This product should not be used directly for clinical diagnosis and treatment.

Stability

This product should be stored at 2-8 centigrade and can be stored for at least 12 months.

Storage

At 2-8 centigrade

Storage Buffer

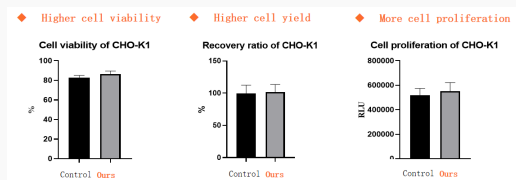
DPBS solution (It contains 1.1mM EDTA)

Concentration

0.025 mg/mL

Shipping

Ice pack

Cell Digestion Test


CHO-K1 cells were digested with trypsin-like enzyme (1×) from a well-known brand

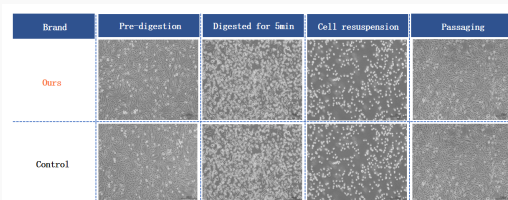
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and our 0.025 mg/mL recombinant trypsin similar, respectively. Cell viability was calculated after digestion at 37 centigrade for 5 min; After digestion, cell recovery ratio was calculated. Then cells were cultured to a certain density after inoculation into 96-well plates, and cell proliferation was detected.

CHO-K1 cell digestion

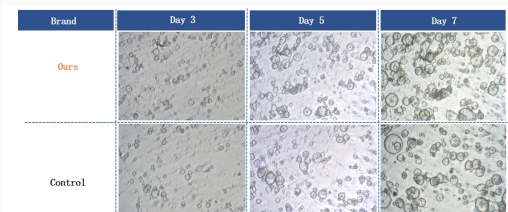


Brand	Type	Concentration of viable cells	Cell viability	Clumping rate
Control	Sample 1	7.43×10^5 cell/ml	92.31%	2.77%
	Sample 2	6.26×10^5 cell/ml	89.75%	5.63%
Ours	Sample 1	7.56×10^5 cell/ml	97.33%	1.94%
	Sample 2	6.97×10^5 cell/ml	90.24%	4.84%

Mesenchymal Stem Cell Digestion Test

For digesting MSC, our recombinant trypsin similar demonstrates superior performance in terms of cell viability and clumping rate. MSCs were digested with trypsin-like enzyme (1×) from a well-known brand and our recombinant trypsin similar. Then, the concentration of viable cells, cell viability and incorporation rate were counted and calculated separately.

Organoid Digestion Test



For digesting organoids, our recombinant trypsin similar demonstrates superior performance in terms of cell viability. Gastric cancer organoids (11 th generation) digestion

Brand	Gastric cancer organoids (11th generation)		Gastric cancer organoids (4th generation)	
	Concentration of viable cells	Cell viability	Concentration of viable cells	Cell viability
Control	2.68×10^4	64.54%	1.1×10^4	71.87%
Our recombinant trypsin solution	1.34×10^4	66.50%	2.33×10^4	66.67%
Our recombinant trypsin similar	4.35×10^4	74.54%	2.0×10^4	78.33%

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