Active Recombinant Porcine Trypsin, Phenol Red Labeled

Cat. No. trypsin-38P **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Our recombinant trypsin solution is formulated by aseptic filtration with porcine trypsin obtained from microbial fermentation as the main raw material. The product is produced under GMP regulations without adding any animal source raw materials, which prevents animal-derived virus contamination from the source. The solution has high biological safety and can completely substitute animal-derived trypsin. It can be widely used for the digestion of adherent cells. This product contains Phenol Red, 0.913 mM EDTA, with a pH of 7.2-8.0. pH: 7.3-7.5 Osmolarity: 270-320 mOsm/kg Mycoplasma assay: Negative Microbiological assay: Negative Host protein residue: < 0.005% Host nucleic acid residue: < 100 pg/mg
Species	Porcine
Description	Trypsin is a serine protease endopeptidase secreted by the pancreas. Its recognition sites are lysine and arginine residues, with cleavage occurring at the carboxyl terminus of these residues. This product is recombinant porcine trypsin expressed in Pichia pastoris. It is manufactured under GMP-compliant conditions, contains no animal-derived components, and is free from animal-origin viral contaminants (e.g., swine influenza virus and porcine parvovirus). The preparation is inherently devoid of chymotrypsin activity. The activity is inhibited by serine protease inhibitors (e.g., PMSF, TLCK) and metal ion chelators (e.g., EDTA).
Form	Solution
Purity	> 95%

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Bio-activity	≥ 150 USP U/mL
Specific activity	> 5800 U/mg
Advantages	1. Easy to use: With phenol red/EDTA or not/Customizable concentration or lyophilization. 2. Good digestion effect: Better cell viability, yield, and proliferation activity
Unit definition	One USP unit was defined as a 0.003 increase in absorption at 253 nm per minute of enzymatic digestion of BAEE in 3.2 mL of reaction system (1 cm optical path) at 25 centigrade, pH 7.6.
Endotoxin	< 1.0 EU/mL
Usage	Pre-warm recombinant trypsin solution and complete medium at 37 centigrade before use. Discard the supernatant of the culture medium. Wash the cells with an appropriate amount of DPBS, and then discard the DPBS. Add an appropriate amount of recombinant trypsin solution (0.5 mL per 10 cm^2) and incubate at 37 centigrade until the cells detach. 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. Discard the supernatant and add an appropriate amount of complete medium for cell culture.
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 -20 centigrade and can be stored for at least 12 months. In addition, this product can be stored at 4 centigrade for 1-2 weeks.

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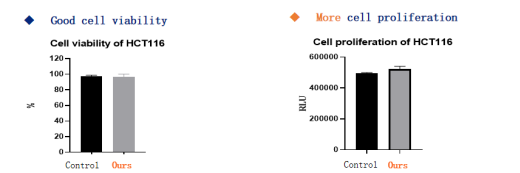
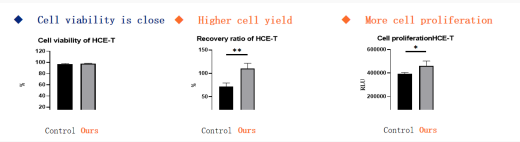
Storage	Store at -20 centigrade.
Concentration	0.025 mg/mL
Shipping	Dry ice
HCT116 Cell Digestion	 HCT116 are digested with 0.25% trypsin solution from a well-known brand and our 0.025 mg/mL recombinant trypsin solution, and then: calculate cell viability after digestion at 37 centigrade for 2 min; after digestion, inoculate the cells into 96-well plates, culture them to a certain density, and detect the cell proliferation effect.
HCE-T Cell Digestion	 HCE-T cells are digested with 0.25% trypsin solution from a well-known brand and our 0.025 mg/mL recombinant trypsin solution. Cell viability is calculated after digestion at 37 centigrade for 5 min. After digestion, cell recovery ratios are calculated. Then cells are cultured to a certain density after inoculation into 96-well plates, and cell proliferation effects are detected.

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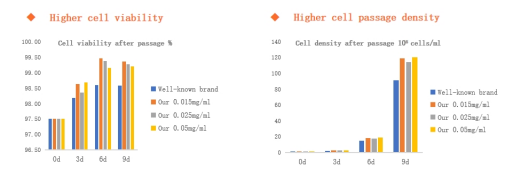

3T3 Cell Digestion Test	3T3 cells were digested with 1× trypsin solution from a well-known brand and our 0.015 mg/mL, 0.025 mg/mL, 0.05 mg/mL recombinant trypsin solution at 37 centigrade for 60 seconds. Passaging was carried out every 3 days, and the cell inoculum density and culture system volume of each group of samples were controlled at each passaging, and the cell viability and cell passaging density were finally calculated and compared.

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