

Recombinant Trypsin 3.0, Mass Spec Grade

Cat. No. Trypsin-36 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Description	rTrypsin 3.0 is a recombinant protease that specifically hydrolyzes peptide bonds at the carboxyl side of lysine and arginine residues. Engineered with a redesigned gene sequence and methylated lysines, it offers ultra-fast protein hydrolysis, high activity, and no self-degradation. rTrypsin 3.0 is ideal for protein characterization, single-cell proteomics, and large cohort proteomics studies.
Form	Lyophilized powder with 20 µg Trehalose.
Bio-activity	15,000 units/mg
Molecular Mass	23.7 kDa
Purity	> 99.0 % based on trypsin peak area, analyzed by HPLC at 280 nm.
Storage	Store the lyophilized powder at -20 centigrade, store reconstituted enzyme at -80 centigrade.
CAS No.	9002-07-7
Shelf life	24 months at -20 centigrade
Stability	rTrypsin 3.0 is maximally active in the pH range of 7-9

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Usage Notes	1. Suitable enzyme digestion buffers: 20 mmol Tris, 50 mmol ABC, or HEPES buffer; pH 7-9. 2. Use a 1:50 protease-to-protein ratio with a protein concentration of 0.5 µg/µL. Incubate at 37 centigrade in a dry bath for 30 minutes.
Specificity	Secukinumab antibody protein sample analyzed by ESI-MS/MS, showing > 99.8 % specificity at K and R cleavage sites.
Unit Definition	At pH 7.8 and 25 centigrade, 1.0 µmol of BAEE protein is hydrolyzed per minute at 253 nm.
LC-MS/MS Analysis	Secukinumab antibody protein was denatured, reduced, and alkylated with BT57 reagent at 60 centigrade, pH 8.0, followed by incubation at 45 centigrade for 30 minutes and HPLC-MS/MS analysis. The heavy chain showed 70 % coverage (1 missed cleavage), while the light chain had 100 % coverage.
Resuspension Buffer	Dissolved in 40 µL of 50 mmol acetic acid, concentration 0.5 µg/µL.