Recombinant Asp-N, Mass Spec Grade

Cat. No. Asp-N-41 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	rAsp-N protease is a recombinant expressed metalloprotease, derived from Pseudomonas fragi. that specifically hydrolyzes peptide bonds at the N-terminal of aspartic residues.
Species	Pseudomonas fragi
Description	This enzyme can be applied for protein structure sequence analysis or proteomics research.
Form	Lyophilized powder with 78.8 µg Tris-HCl, 0.16 mg trehalose
Bio-activity	1800 unit/mg
Molecular Mass	22.4 kDa
Purity	> 97 % peak area analyzed by HPLC at 280 nm.
Storage	Store the lyophilized powder at -20 centigrade.
EC No.	EC 3.4.24.33
Shelf life	12 months at -20 centigrade.
Stability	Maximally active in the pH range 7.5-8.5.

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Usage Notes	In-Solution Protein Digestion Protocol: 1. recommend digest buffer: 20 mmol Tris, 50mmol ABC or HEPES buffer; pH range between at 7-8. 2. 20 µg denatured protein sample in 40 µL digest buffer. 3. Add 10 µL rAsp-N to reach a final enzyme to substrate ratio of 1: 10/50 to digest the samples. Mix well and incubate at 37 centigrade for 2 hours.
Specificity	Glucagon protein incubate with rAsp N at 37 centigrade for 2 hours, specific peptides analyzed by LC-MS/MS matched with 100 % theory peptides.
Unit Definition	The amount of 1ug Asp N protease diluted 50 times and reacted with 0.072umol Cecropin A protein. assay condition: 50ul 20mmol Tris buffer, pH=8.0, 37 centigrade incubate for 1 hour and analysis by HPLC.
LC-MS/MS Analysis	50 µg Glucagon was dissolved in 50ul 50mmol Tris buffer at pH 8.0, incubate with 1ug rAsp N at 37 centigrade for 2 h. The digest was analyzed by LC-MS/MS. Experimental peptide results match the peptides generated in a theoretical peptides. Nonspecificity of rAsp-N: melittin are incubated at 37 centigrade for 1 h to detect nonspecific peptides.
Resuspension Buffer	20 µL ultra water

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