Recombinant Bovine Trypsin

Cat. No. PRSS2-6B **Lot. No.** (See product label)

SPECIFICATION

Product Overview	
Species	Bovine
Description	Trypsin (EC 3.4.21.4) is a serine protease from the PA clan superfamily, found in the digestive system of many vertebrates, where it hydrolyses proteins. Trypsin is produced in the pancreas as the inactive proenzymetrypsinogen. Trypsin cleaves peptide chains mainly at the carboxyl side of the amino acids lysine or arginine, except when either is followed by proline. It is used for numerous biotechnological processes. The process is commonly referred to as trypsin proteolysis or trypsinisation, and proteins that have been digested/treated with trypsin are said to have been trypsinized.
Form	The protein was lyophilized without any additives.
Purity	Greater than 90% as determined by(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.
Unit Definition	The hydrolysis reaction of BAEE is conducted in 3.2 mL cuvette (1cm cell path length). 1 unit enzymatic activity is defined as increasing 0.001 OD at 253nm per min at 25°C, pH 7.6.
Enzyme Unit	> 12000 BAEE U/(mg pro)
Applications	For trypsin digestion of peptides, use a ratio of about 1:100 to 1:20 for trypsin:peptide.

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	The typical use for this product is in removing adherent cells from a culture surface. The concentration of trypsin necessary to dislodge cells from their substrate is dependent primarily on the cell type and the age of the culture. Trypsins have also been used for the re-suspension of cells during cell culture, in proteomics research for digestion of proteins and in various in-gel digestions. Additional applications include assessing crystallization by membrane-based techniques and in a study to determine that protein folding rates and yields can be limited by the presence of kinetic traps.
Usage	This product is furnished for LABORATORY RESEARCH USE ONLY. Not for diagnostic or therapeutic use.
Storage	Bovine Trypsin although stable at room temp for 1 week, should be stored desiccated below -18°C.For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.
Concentration	1 – 5 mg/mL
Reconstitution	It is recommended to reconstitute the lyophilized Bovine Trypsin in sterile 18MΩ-cm H2O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

GENE INFORMATION

Gene Name	PRSS2 protease, serine, 2 (trypsin 2) [Bos taurus (cattle)]
Official Symbol	PRSS2
Synonyms	PRSS2; Trypsin; TRYP8
Gene ID	282603

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mRNA Refseq	NM_174690
Protein Refseq	NP_777115
UniProt ID	Q547S4
Chromosome Location	chromosome: 4
Pathway	Influenza A, organism-specific biosystem; Neuroactive ligand-receptor interaction, organism-specific biosystem
Function	calcium ion binding; serine-type endopeptidase activity

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