Creative Enzymes®

Immobilized Trypsin, TPCK Treated (Agarose Resin)

Cat. No. NATE-1867

Lot. No. (See product label)

Introduction

Description	Trypsin immobilized on beaded agarose makes it possible to eliminate enzyme contamination of tryptic digests. The trypsin can be easily removed from the digest by separating the trypsin gel from the digestion solution. The Thermo Scientific Immobilized TPCK Trypsin is treated with L-1-tosylamido-2-phenylethyl chloromethyl ketone (TPCK), which is a reagent that has been reported to inhibit chymotrypsin activity without effect on trypsin. Trypsin is a 23,200 molecular weight protein with a pH optimum between 7.5 and 9.0. The isoelectric points of trypsinogen and trypsin are 10.5 and 9.3, respectively. Trypsin has a wide range of applications including amino acid analysis and protein sequencing studies. Enzymes such as trypsin and chymotrypsin are selective in their cleavage of peptide bonds and have become important tools in sequencing studies. Chymotrypsin cleaves peptide bonds in which the carboxyl group is contributed by phenylalanine, tryptophan and tyrosine. In contrast, trypsin cleaves only those peptide bonds in which the carboxyl group is contributed by lysine or arginine residues, regardless of the length or amino acid sequence of the chain. The total number of resulting peptides can be estimated from the number of lysine and arginine residues in the protein. Ionexchange chromatography, paper electrophoresis or peptide mapping can be used to separate digestion fragments.
Synonyms	Immobilized Trypsin

Product Information

Source	Bovine pancreas
Form	2mL of settled gel supplied as a 50% slurry containing glycerol and 0.05% sodium azide as a preservative.
EC Number	EC 3.4.21.4
Activity	> 200 TAME units per mL of gel
Refractive Index	1.76 (Predicted)
Density	~1.4 g/cm3 (Predicted)
Unit Definition	One unit is equal to 1 µmole of TAME (p-toluenesulfonyl-L-arginine methyl ester in the presence of Ca2+) hydrolyzed/min at pH 8.2, 25°C. (One TAME unit = 19.2 National Formulatory units = 57.5 BAEE units)

Storage and Shipping Information

Storage	Upon receipt store at 4°C. Product is shipped at ambient temperature.