

RECOMBINANT (PORCINE) TRYPSIN TAG-FREE GMP

Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder and sterile clear, colorless liquid
Description	Trypsin is a major proteolytic enzyme, synthesized as a proenzyme by pancreas and is stored as proenzyme trypsinogen in secretory granules. Trypsin belongs to the family of serine proteases that are characterized by the catalytic triad His57, Asp102 and Ser195. Trypsin is routinely used in proteomics research for peptide mapping and protein sequence work due to its highly specific cleavage resulting in a limited number of tryptic peptides. Trypsin is a pancreatic serine endoprotease which hydrolyzes peptide bonds specifically at the carboxyl side of arginine and lysine residues. The rate of hydrolysis is slower if an acidic residue is on either side of the cleavage site and cleavage may not occur if a proline residue is on the carboxyl side. The enzyme also exhibits esterase and amidase activities.
Catalog Number	GA04.1(liquid)/GA04.2/GA04.3/GA04.4/GA04.5
Unit Size	1mL(10mg/mL)/500mg/10mg/100mg/1000mg
Source	E. coli
Molecular Weight	Approximately 23kDa
Purity (HPLC)	β -trypsin \geq 70%, α -trypsin \leq 20%
Biological Activity	\geq 3800 USP Unit/mg protein (One USP Unit will produce an A253nm of 0.003 per minute with BAEE as substrate at pH7.6 at 25°C in a reaction volume of 3.2mL)
Host Cell DNA Residue	< 0.02 ng/ μ g of protein tested by DNA Fluorescent Staining method.
Host Cell Protein Residue	< 0.5 ng/ μ g of protein tested by ELISA.
Formulation	20mM CaCl ₂ , 10mM HCl, pH2 \pm 0.5
Sterility	Negative
Endotoxin	< 0.5 EU/100U as determined by LAL gel-clot method.
Mycoplasma	Negative
Reconstitution	Before use this product, please read the direction below carefully. 1. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. 2. Reconstitute in a sterile aqueous buffer to an appropriate concentration. 3. Stock solutions should be apportioned into working aliquots and stored at \leq -20 °C. Further dilutions should be made in appropriate buffered solutions.
Stability & Storage	24 months from date of receipt, the product should be stored \leq -20 °C. Please avoid repeated freeze-thaw cycles after reconstitution.
Shipping	The product is shipped with dry ice(liquid) or wet ice (powder). Upon receipt, store it immediately at the temperature recommended.

