



UCF.ME™ Recombinant CPB (Powder)

Product description

Carboxypeptidase B, also known as peptidyl-L-lysine (L-lysine) hydrolase or pancreatic carboxypeptidase B, is a specialized enzyme that hydrolyzes the amino group at the C-terminus of basic amino acids in proteins (Lysine (Lys, K), Arginine (Arg, R), and Histidine (His, H)). It has a molecular weight of 33.8 kD and an isoelectric point of 6.0, with an optimal pH range of 7.5 to 9.0. The activity of carboxypeptidase B is subject to competitive inhibition by arginine and lysine, and is inhibited by metal ion chelators such as EDTA.

Yeast UCF.ME™ Recombinant CPB is expressed in E.coli, produced under GMP regulations, free of any animal-derived components, and without the risk of viral contamination from animal sources. The amino acid sequence is identical to that of rat pancreatic carboxypeptidase B, possessing the same enzymatic properties as the animal-derived enzyme, and can be used as a substitute in various biotechnological processes.

Applications

1. Production of recombinant insulin and its analogs.
2. Determination of the C-terminal amino acids of proteins.
3. Removal of the C-terminal histidine tag from proteins.
4. Production of other recombinant polypeptide substances.
5. Enzymatic synthesis of certain special compounds.

Components

Components No.	Name	20417ES03	20417ES10
20417	UCF.ME™ Recombinant CPB (Powder)	1 mg	10 mg

Properties

Source	E.coli recombinant expression
Molecular Weight	Theoretical value 33.8±3.4 kDa
Appearance	White, off-white, or pale yellow powder
Enzyme Concentration	≥170 USP units/mg pro
Unit Definition	At 25°C, pH 7.6, the amount of enzyme that catalyzes 1 μmol of hippuryl-L-arginine hydrolysis in 1 minute is defined as one unit of enzyme activity.
Quality Assurance	SDS-PAGE gel detection shows a clear single band of the target protein; no other proteases present, no non-specific cutting.

Storage

Lyophilized powder should be stored at 2~8°C for two years.



After dissolving with sterile water or 25 mM Tris-HCl (pH 7.6), store at -25~-15°C, with no loss of activity after 10 freeze-thaw cycles.

Instructions (Application Example)

Dissolve recombinant carboxypeptidase B with sterile water or 25mM Tris-HCl (pH 7.6) to a concentration of 1-10 mg/mL;

Enzyme amount: target protein (mass ratio) = 1:50-1:1000, with the optimal pH range of 7.5-9.0.

Notes

1. Please wear the necessary PPE, such lab coat and gloves, to ensure your health and safety
2. For research use only!