

Recombinant Carboxypeptidase B

Product Number: RCPB01

Shipping and Storage

1. Transportation stability: ice bag insulation transportation, stable activity.
2. Storage stability: the lyophilized powder can be stored stably for at least 24 months at -15~-20°C. 25 mm Tris HCl (pH 7.6) was dissolved and stored at -15~-20 °C for 10 times with no loss of activity. It is recommended to store at 2~8 °C for no more than 7 days after dissolution, and at -15~-20 °C for no more than 30 days.

Description

Carboxypeptidase B, also known as peptidyl-L-lysine (L-arginine) hydrolase, spermase, is a metalloproteinase that specifically hydrolyzes the protein's C-terminal basic amino acid. Amino acid, arginine, histidine). This product is a recombinant carboxypeptidase B lyophilized powder which is isolated and purified from recombinant *Pichia pastoris* and then freeze-dried. This product belongs to the biochemical grade genetic engineering enzyme, no exogenous virus contamination, does not contain enzyme inhibitors such as DFP, PMSF and TLCK, and has the same activity and specificity as natural carboxypeptidase B.

| Item | Feature |
|-------------------|---------------------------|
| Appearances | White or off-white powder |
| Specific activity | ≥80U/mg pro. (Check COA) |
| MW | 36kD±3.6kD |
| Purity | ≥95%(SDS-PAGE) |
| Protein content | 20%-60% (Check COA) |
| Residue DNA | ≤100ng/mg pro. |
| Residue HCP | ≤100ng/mg pro. |
| Optimum pH | 7.0~9.0 |
| Solubility | Soluble in buffer |

Enzyme activity definition: The amount of enzyme that catalyzes the hydrolysis of 1μmol of hippoyl-L-arginine for 1 min at 25° C and pH 7.65 is 1U.

Features

1. No animal origin: no animal virus, no pathogenic substance, no foreign factor pollution, high safety.
2. High purity: high specific activity; The residue of host protein is less than the limit of biological products.
3. It meets the standards of Chinese Pharmacopoeia 2020 and usp43.
4. The production scale is more than 1000L.
5. Compliance: the production equipment and production environment meet the requirements of relevant regulations and GMP guidelines.
6. Complete quality documents: according to customer requirements, relevant regulatory supporting documents can be provided.

Application

1. Production of various proteins or peptides, such as insulin and analogues, beauty peptides, antimicrobial peptides, food flavor peptides, etc.
2. Quality detection of antibodies.
3. Determination of protein C-terminal amino acids.

Protocol

1. Protein preparation



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The protein was dissolved in a solution of 25 mM Tris-HCl, pH 7.6.

2. Enzyme preparation

The desired enzyme powder was weighed and dissolved in 25 mM Tris-HCl (pH 7.6) to give an enzyme solution concentration of 1~10 mg/ml.

3. Reaction

Recommended enzyme amount: target protein (mass ratio) = 1:50 ~ 1:1000, optimum pH is 7.0~9.0.

Note

1. Competitive inhibition of active fertilized lysine and lysine, and metal ion chelators such as EDTA also inhibit enzyme activity.
2. This product has moisture absorption property, and should be taken after room temperature equilibration.
3. This product is for research use only, and should not be used for diagnosis or treatment of animals or humans.