KRISHGEN BioSystems
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KRISHZYME™ Carboxypeptidase B

Catalog Number: KBENZ47

Protein Description

The KRISHZYME™ Carboxypeptidase B is an exopeptidase enzyme that cleaves basic amino acids - arginine (Arg) and lysine (Lys) - from the C-terminal end of peptides and proteins.

Expression Host:

E.coli

Purity:

>95% as determined by SDS-PAGE quantitative densitometry by Coomassie Blue Staining.

Endotoxin:

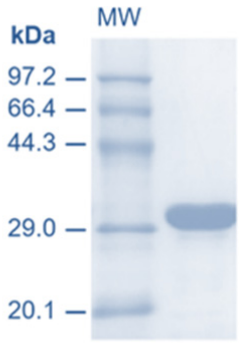
< 0.05 EU/1000 units as determined by the LAL method.

Molecular Mass:

The KRISHZYME™ Carboxypeptidase B has a calculated molecular mass of 34.12 kDa

SDS-PAGE:

Fig.1.



KDa Marker 98%

Fig. 1. Purity analysis by SDS-PAGE Detection

Enzyme Activity:

>170 U / mg (At 25ºC, pH 7.6, the enzyme activity is defined as the amount of enzyme that catalyzes the hydrolysis of 1 µmol of N-methyl-maleimide-L-arginine per minute).

Concentration:

170 U/mg

Unit Definition:

The amount of enzyme required to cut 1ug recombinant monoclonal IgG at >95% for 30 minutes at 37ºC is defined as an active unit.

Formulation:

KRISHZYME™ Carboxypeptidase B is supplied as a lyophilized vial from buffer solution of 20 mM Tris-HCl, 50% glycerol, pH 7.5)

Reconstitution:

Being enzymes, the concentration may differ from lot to lot produced by us. We always recommend referring the accompanying data sheet to view the exact concentration and the recommended dilution schemata.

Centrifuge the vial at 4ºC before opening to recover the entire contents. Please contact us for any concerns or special requirements at +91-22-49198700 | Email: sales1@krishgen.com

Storage:

Store it under sterile conditions at -20ºC to -80ºC upon receiving for at least 12 months. It is recommended to aliquot the enzyme into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles.

Application:

- Determination of C-terminal amino acids of proteins:
- Production of biopharmaceuticals to process precursor proteins or peptides to generate active drug forms. For example, in the production of insulin, carboxypeptidase B can be used to remove connecting peptides, releasing active insulin molecules. During the maturation of drug precursors, carboxypeptidase B can be used to precisely remove specific amino acids from the ends of peptide chains, ensuring that the drug has the correct structure and biological activity.
- Protein Function Research:
- Protein Modification and Labeling:

Protocol:

For optimal usage, the enzyme-to-protein ratio should be maintained between 1:50 to 1:1000, with the optimal pH ranging from 7.5 to 9.0.

References:

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