Recombinant Lysobacter Arg-C, Enzymogenes

20150227BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**100-403S**
Size:	5 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	*0*
Synonyms:	Proteolytic enzymes, peptidases, proteinases

Proteases (also called Proteolytic Enzymes, Peptidases, or Proteinases) are enzymes that hydrolyze the amide bonds within proteins or peptides. Most proteases act in a specific manner, hydrolyzing bonds at or adjacent to specific residues or a specific sequence of residues contained within the substrate protein or peptide. Proteases play an important role in most diseases and biological processes including prenatal and postnatal development, reproduction, signal transduction, the immune response, various autoimmune and degenerative diseases, and cancer. They are also an important research tool, frequently used in the analysis and production of proteins. Arg-C specifically cleaves at the carboxyl side of Arginine residues. Arg-C has a sulfhydryl requirement; it is activated by dithiothreitol, cysteine, or other sulfhydryl containing reagents. The presence of calcium ions is essential. The enzyme is inhibited by oxidizing agents and sulfhydryl reactants and by Co2+, Cu2+, Cd2+, and heavy metal ions. Recombinant Lysobacter Enzymogenes Arg-C is a 26.8 kDa protease consisting of 252 amino acid residues including a C-terminal His-Tag.

Sequence

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GVGDIGSSDY CEKDIVCRVK PSAEFLSASK SVARMVFTPK
TGYTGYCSGT LLNNSNSPKR QLFWSAAHCI STQKVANTLQ
TYWLYDATGC DNDTLSDKAV TLTGGATLLH SHATRDTLLL
ELKSAPPSGA YYAGWNSSAI ATKGTAIEGI HHPSGDLKKY
SLGSVTALSS TIDGKKPLTK VAWTTGVTEG GSSGSGLFTI
SSTSGYQLRG GLYGGTSYCS APSDPDYYSQ LDGVWSSIKT
YFSPHHHHHH HH
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Database References

Protein RefSeq:	AAD11571.1
Uniprot ID:	O87544
mRNA RefSeq:	AF083621.1

Product Specifications

Expressed in	Insect cells
Purity	> 95% by SDS-PAGE & HPLC analyses
Tag	His-Tag
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	lyophilized
Length (aa):	252
MW:	26.8 kDa

Biological Activity: The reaction is measured as an increase in absorbance at 253 nm resulting from the hydrolysis of N-benzoyl-L-arginine ethyl ester (BAEE).

AVOID REPEATED FREEZE AND THAW CYCLES!