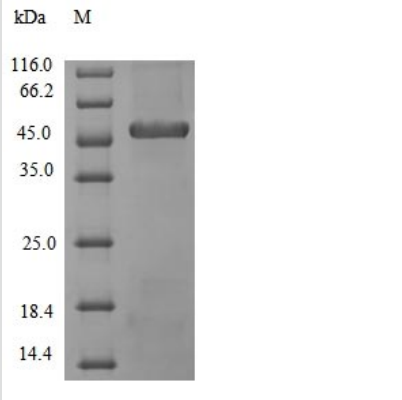
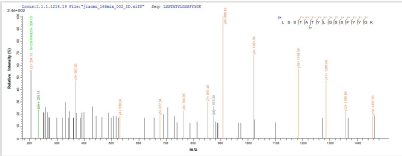
Recombinant Bacillus licheniformis Subtilisin Carlsberg (subC)

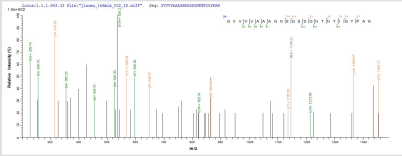
Product Code	CSB-EP365470BQT
Relevance	Subtilisin is an extracellular alkaline serine protease, it catalyzes the hydrolysis of proteins and peptide amides.
Abbreviation	Recombinant Bacillus licheniformis apr protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P00780
Product Type	Recombinant Proteins
Immunogen Species	Bacillus licheniformis
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	AQTVPYGIPLIKADKVQAQGFKGANVKVAVLDTGIQASHPDLNVVGGASFVAG EAYNTDGNGHGTHVAGTVAALDNTTGVLGVAPSVSLYAVKVLNSSGSGTYSG IVSGIEWATTNGMDVINMSLGGPSGSTAMKQAVDNAYARGVVVVAAAGNSGS SGNTNTIGYPAKYDSVIAVGAVDSNSNRASFSSVGAELEVMAPGAGVYSTYPT STYATLNGTSMASPHVAGAAALILSKHPNLSASQVRNRLSSTATYLGSSFYYG KGLINVEAAAQ
Research Area	others
Source	E.coli
Target Names	apr
Protein Names	Recommended name: Subtilisin Carlsberg EC= 3.4.21.62
Expression Region	106-379aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-SUMO-tagged
Mol. Weight	42.0kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP365470BQT could indicate that this peptide derived from E.coli-expressed Bacillus licheniformis apr.



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Description

Recombinant Bacillus licheniformis apr is an E.coli cell-expressed protein (Full Length of Mature Protein). E.coli expression systems are popular because bacteria are easy to culture, grow fast and produce high yields of recombinant protein. Traditional strategies for Bacillus licheniformis apr recombinant protein expression involve transforming the recombinant plasmid into the E. coli host. The cells were directly replicated, transcribed and translated, and IPTG was added to express the desired protein. Typically, the cells are then lysed to extract the expressed protein for subsequent purification. Also, many proteins become insoluble as inclusion bodies that are very difficult to recover, so mild conditions and subsequent cumbersome protein-refolding procedures are used to ensure the final provided protein is soluble.

apr (also known as subC) is a gene providing an instruction in making a protein named subtilisin carlsberg in Bacillus licheniformis. The protein encoded by this gene belongs to peptidase S8 family, a group of serine proteases that – like all serine proteases – initiate the nucleophilic attack on the peptide bond through a serine residue at the active site. The gene from Bacillus licheniformis has been isolated by molecular cloning using a mixture of synthetic oligonucleotides. The entire nucleotide sequence of the coding sequence as well as 5′ and 3′ flanking sequences have been determined.

Shelf Life

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