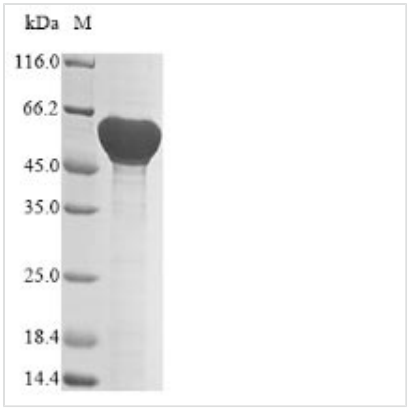
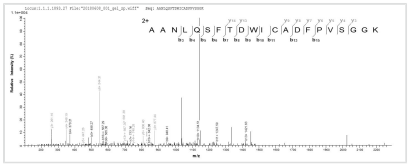
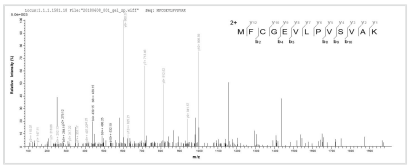
Recombinant Bacillus subtilis D-alanine--D-alanyl carrier protein ligase (dltA)

Product Code	CSB-EP336594BRJ(A4)
Relevance	Catalyzes the first step in the D-alanylation of lipoteichoic acid (LTA), the activation of D-alanine and its transfer onto the D-alanyl carrier protein (Dcp) DltC. In an ATP-dependent two-step reaction, forms a high energy D-alanyl-AMP intermediate, followed by transfer of the D-alanyl residue as a thiol ester to the phosphopantheinyl prosthetic group of the Dcp. D-alanylation of LTA plays an important role in modulating the properties of the cell wall in Gram-positive bacteria, influencing the net charge of the cell wall.
Abbreviation	Recombinant Bacillus subtilis dltA 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.	P39581
Product Type	Recombinant Protein
Immunogen Species	Bacillus subtilis (strain 168)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MKLLHAIQTHAETYPQTDAFRSQGQSLTYQELWEQSDRAAAAIQKRISGEKKS PILVYGHMEPHMIVSFLGSVKAGHPYIPVDLSIPSERIAKIIESSGAELLIHAAGLS IDAVGQQIQTVSAEELLENEGGSVSQDQWVKEHETFYIIYTSGSTGNPKGVQIS AANLQSFTDWICADFPVSGGKIFLNQAPFSFDLSVMDLYPCLQSGGTLHCVTK DAVNKPKVLFEELKKSGLNVWTSTPSFVQMCLMDPGFSQDLLPHADTFMFCG EVLPVSVAKALLERFPKAKIFNTYGPTEATVAVTSVEITNDVISRSESLPVGFAK PDMNIFIMDEEGQPLPEGEKGEIVIAGPSVSRGYLGEPELTEKAFFSHEGQWA YRTGDAGFIQDGQIFCQGRLDFQIKLHGYRMELEEIEFHVRQSQYVRSAVVIPY QPNGTVEYLIAAIVPEEHEFEKEFQLTSAIKKELAASLPAYMIPRKFIYQDHIQMT ANGKIDRKRIGEEVLV
Research Area	Cancer
Source	E.coli
Target Names	dltA
Protein Names	D-alanine--poly(phosphoribitol) ligase subunit 1D-alanine-activating enzymedae
Expression Region	1-503aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	59.8 kDa

Protein Length	Full Length
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-EP336594BRJ(A4) could indicate that this peptide derived from E.coli-expressed Bacillus subtilis (strain 168) dltA.
	 Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP336594BRJ(A4) could indicate that this peptide derived from E.coli-expressed Bacillus subtilis (strain 168) dltA.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	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.