Datasheet for ABIN3133320

TAP1 Protein (AA 1-724) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	TAP1
Protein Characteristics:	AA 1-724
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TAP1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	MAAHVWLAAA LLLLVDWLLL RPMLPGIFSL LVPEVPLLRV WVVGLSRWAI LGLGVRGVLG VTAGAHGWLA ALQPLVAALS LALPGLALFR ELAAWGTLRE GDSAGLLYWN SRPDAFAISY VAALPAAALW HKLGSLWAPS GNRDAGDMLC RMLGFLGPKK RRLYLVLVLL ILSCLGEMAI PFFTGRITDW ILQDKTVPSF TRNIWLMSIL TIASTALEFA SDGIYNITMG HMHGRVHREV FRAVLRQETG FFLKNPAGSI TSRVTEDTAN VCESISGTLS LLLWYLGRAL CLLVFMFWGS PYLTLVTLIN LPLLFLLPKK LGKVHQSLAV KVQESLAKST QVALEALSAM PTVRSFANEE GEAQKFRQKL EEMKTLNKKE ALAYVAEVWT TSVSGMLLKV GILYLGGQLV IRGAVSSGNL VSFVLYQLQF TQAVQVLLSL YPSMQKAVGS SEKIFEYLDR TPCSPLSGSL APSNMKGLVE FQDVSFAYPN QPKVQVLQGL TFTLHPGTVT ALVGPNGSGK STVAALLQNL YQPTGGQLLL DGQCLVQYDH HYLHTQVAAV GQEPLLFGRS FRENIAYGLN RTPTMEEITA VAVESGAHDF ISGFPQGYDT EVGETGNQLS GGQRQAVALA RALIRKPLLL ILDDATSALD AGNQLRVQRL

	LYESPKRASR TVLLITQQLS LAEQAHHILF LREGSVGEQG THLQLMKRGG CYRAMVEALA APAD **Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Characteristics:	Key Benefits: • Made in Germany - from design to production - by highly experienced protein experts. • Protein expressed with ALiCE® and purified in one-step affinity chromatography • These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed). • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified. Expression System: • ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. • During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein! Concentration: • The concentration of our recombinant proteins is measured using the absorbance at 280nm. • The protein's absorbance will be measured against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).

Product Details

Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	TAP1
Alternative Name:	Tap1 (TAP1 Products)
Background:	Antigen peptide transporter 1 (APT1) (EC 7.4.2.14) (ATP-binding cassette sub-family B member 2) (Histocompatibility antigen modifier 1) (Peptide transporter TAP1),FUNCTION: ABC transporter associated with antigen processing. In complex with TAP2 mediates unidirectional translocation of peptide antigens from cytosol to endoplasmic reticulum (ER) for loading onto MHC class I (MHCI) molecules. Uses the chemical energy of ATP to export peptides against the concentration gradient. During the transport cycle alternates between 'inward-facing' state with peptide binding site facing the cytosol to 'outward-facing' state with peptide binding site facing the ER lumen. Peptide antigen binding to ATP-loaded TAP1-TAP2 induces a switch to hydrolysis-competent 'outward-facing' conformation ready for peptide loading onto nascent MHCI molecules. Subsequently ATP hydrolysis resets the transporter to the 'inward facing' state for a new cycle. As a component of the peptide loading complex (PLC), acts as a molecular scaffold essential for peptide-MHCI assembly and antigen presentation. {ECO:0000250|UniProtKB:Q03518}.
Molecular Weight:	78.9 kDa
UniProt:	P21958
Pathways:	Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process, Human Leukocyte Antigen (HLA) in Adaptive Immune Response

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

Application Details

	During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months