Datasheet for ABIN7555733

TAP2 Protein (AA 1-686) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	TAP2
Protein Characteristics:	AA 1-686
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TAP2 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant TAP2 Protein expressed in mammalian cells.
Sequence:	MRLPDLRPWT SLLLVDAALL WLLQGPLGTL LPQGLPGLWL EGTLRLGGLW GLLKLRGLLG FVGTLLLPLC LATPLTVSLR ALVAGASRAP PARVASAPWS WLLVGYGAAG LSWSLWAVLS PPGAQEKEQD QVNNKVLMWR LLKLSRPDLP LLVAAFFFLV LAVLGETLIP HYSGRVIDIL GGDFDPHAFA SAIFFMCLFS FGSSLSAGCR GGCFTYTMSR INLRIREQLF SSLLRQDLGF FQETKTGELN SRLSSDTTLM SNWLPLNANV LLRSLVKVVG LYGFMLSISP RLTLLSLLHM PFTIAAEKVY NTRHQEVLRE IQDAVARAGQ VVREAVGGLQ TVRSFGAEEH EVCRYKEALE QCRQLYWRRD LERALYLLVR RVLHLGVQML MLSCGLQQMQ DGELTQGSLL SFMIYQESVG SYVQTLVYIY GDMLSNVGAA EKVFSYMDRQ PNLPSPGTLA PTTLQGVVKF QDVSFAYPNR PDRPVLKGLT FTLRPGEVTA LVGPNGSGKS TVAALLQNLY QPTGGQVLLD EKPISQYEHC YLHSQVVSVG QEPVLFSGSV RNNIAYGLQS CEDDKVMAAA QAAHADDFIQ EMEHGIYTDV GEKGSQLAAG QKQRLAIARA LVRDPRVLIL DEATSALDVQ CEQALQDWNS RGDRTVLVIA HRLQTVQRAH QILVLQEGKL QKLAQL **Sequence without tag. The proposed Purification-Tag is**

Product Details

	based on experiences 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.
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • 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. If you are not interested in a full length protein, please contact us for individual protein fragments. 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.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	TAP2
Alternative Name:	TAP2 (TAP2 Products)
Background:	Antigen peptide transporter 2 (APT2) (EC 7.4.2.14) (ATP-binding cassette sub-family B member 3) (Peptide supply factor 2) (Peptide transporter PSF2) (PSF-2) (Peptide transporter TAP2) (Peptide transporter involved in antigen processing 2) (Really interesting new gene 11 protein) (RING11),FUNCTION: ABC transporter associated with antigen processing. In complex with TAP1 mediates unidirectional translocation of peptide antigens from cytosol to endoplasmic reticulum (ER) for loading onto MHC class I (MHCI) molecules (PubMed:25656091, PubMed:25377891). Uses the chemical energy of ATP to export peptides against the concentration gradient (PubMed:25377891). During the transport cycle alternates between 'inward-facing' state with peptide binding site facing the cytosol to 'outward-facing' state with

Target Details

	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 (PubMed:25377891, PubMed:25656091, PubMed:11274390). Typically transports intracellular peptide antigens of 8 to 13 amino acids that arise from cytosolic proteolysis via IFNG-induced immunoproteasome. Binds peptides with free N- and C-termini, the first three and the C-terminal residues being critical. Preferentially selects peptides having a highly hydrophobic residue at position 3 and hydrophobic or charged residues at the C-terminal anchor. Proline at position 2 has the most destabilizing effect (PubMed:7500034, PubMed:9256420, PubMed:11274390). As a component of the peptide loading complex (PLC), acts as a molecular scaffold essential for peptide-MHCI assembly and antigen presentation (PubMed:26611325, PubMed:1538751, PubMed:25377891). {ECO:0000269|PubMed:11274390, ECO:0000269|PubMed:1538751, ECO:0000269|PubMed:25377891, ECO:0000269|PubMed:25656091, ECO:0000269|PubMed:26611325, ECO:0000269|PubMed:7500034, ECO:0000269|PubMed:9256420}.
Molecular Weight:	75.7 kDa
UniProt:	Q03519
Pathways:	Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process, Human Leukocyte Antigen (HLA) in Adaptive Immune Response

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.

Handling

Expiry Date:	12 months