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Anti-TAP2 Picoband Antibody

Catalog # ABO12510

Product Information

Application	WB
Primary Accession	Q03519
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Antigen peptide transporter 2(TAP2) detection. Tested with WB in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	6891
Other Names	Antigen peptide transporter 2, APT2, 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, TAP2, ABCB3, PSF2, RING11, Y1
Calculated MW	75664
Application Details	Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Endoplasmic reticulum membrane; Multi-pass membrane protein. The transmembrane segments seem to form a pore in the membrane.
Source	Eukaryota
Protein Name	Antigen peptide transporter 2
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human TAP2 (611-651aa QKQRLAIARALVRDPRVLILDEATSALDVQCEQALQDWNSR), different from the related mouse sequence by five amino acids, and from the related rat sequence by six amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also

be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	TAP2 {ECO:0000303|PubMed:10605026, ECO:0000312|HGNC:HGNC:44}
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:25377891, PubMed:25656091). 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 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:11274390, PubMed:25377891, PubMed:25656091). 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:11274390, PubMed:7500034, PubMed:9256420). As a component of the peptide loading complex (PLC), acts as a molecular scaffold essential for peptide-MHCI assembly and antigen presentation (PubMed:1538751, PubMed:25377891, PubMed:26611325).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein. Note=The transmembrane segments seem to form a pore in the membrane

Background

Transporter, ATP-binding cassette, major histocompatibility complex 2(TAP2) is a gene in humans that encodes the protein Antigen peptide transporter 2. The membrane-associated protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. The gene is assigned to human chromosome 6p21.3. It is located 7 kb telomeric to gene family member ABCB2. The protein encoded by this gene is involved in antigen presentation. And this protein forms a heterodimer with ABCB2 in order to transport peptides from the cytoplasm to the endoplasmic reticulum.

Images



Anti-TAP2 Picoband antibody, ABO12510, Western blottingAll lanes: Anti TAP2 (ABO12510) at 0.5ug/mlWB: HELA Whole Cell Lysate at 40ugPredicted bind size: 87KDObserved bind size: 87KD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.