

TAP1 Antibody (internal region)
Peptide-affinity purified goat antibody
Catalog # AF2832a**Specification**

TAP1 Antibody (internal region) - Product Information

Application	WB, E
Primary Accession	Q03518
Other Accession	NP_000584.2 , 6890
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	80965

TAP1 Antibody (internal region) - Additional Information**Gene ID** 6890**Other Names**

Antigen peptide transporter 1, APT1, ATP-binding cassette sub-family B member 2, Peptide supply factor 1, Peptide transporter PSF1, PSF-1, Peptide transporter TAP1, Peptide transporter involved in antigen processing 1, Really interesting new gene 4 protein, TAP1, ABCB2, PSF1, RING4, Y3

Dilution

WB~~1:1000

E~~N/A

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

TAP1 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

TAP1 Antibody (internal region) - Protein Information**Name** TAP1 {ECO:0000303|PubMed:10605026, ECO:0000312|HGNC:HGNC:43}**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 (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\\\\\\\\\\\\).\\\\\\\\\\\]\\\\\\\\\\\(http://www.uniprot.org/citations/26611325\\\\\\\\\\\)\\\\\\\\\\]\\\\\\\\\\(http://www.uniprot.org/citations/25377891\\\\\\\\\\)\\\\\\\\\]\\\\\\\\\(http://www.uniprot.org/citations/1538751\\\\\\\\\)\\\\\\\\]\\\\\\\\(http://www.uniprot.org/citations/9256420\\\\\\\\)\\\\\\\]\\\\\\\(http://www.uniprot.org/citations/7500034\\\\\\\)\\\\\\]\\\\\\(http://www.uniprot.org/citations/11274390\\\\\\)\\\\\]\\\\\(http://www.uniprot.org/citations/25656091\\\\\)\\\\]\\\\(http://www.uniprot.org/citations/25377891\\\\)\\\]\\\(http://www.uniprot.org/citations/11274390\\\)\\]\\(http://www.uniprot.org/citations/25377891\\)\]\(http://www.uniprot.org/citations/25656091\)](http://www.uniprot.org/citations/25377891)

Cellular Location

Endoplasmic reticulum membrane; Multi-pass membrane protein. Note=The transmembrane segments seem to form a pore in the membrane

Tissue Location

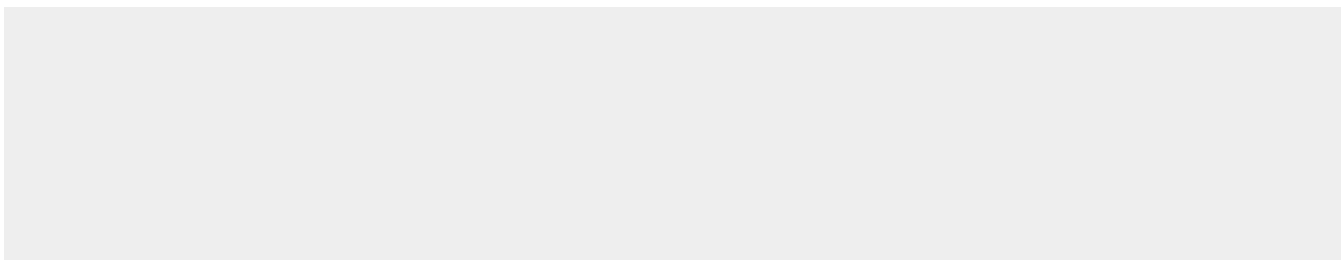
Highly expressed in professional APCs monocytes and dendritic cells as well as in lymphocyte subsets T cells, B cells and NK cells.

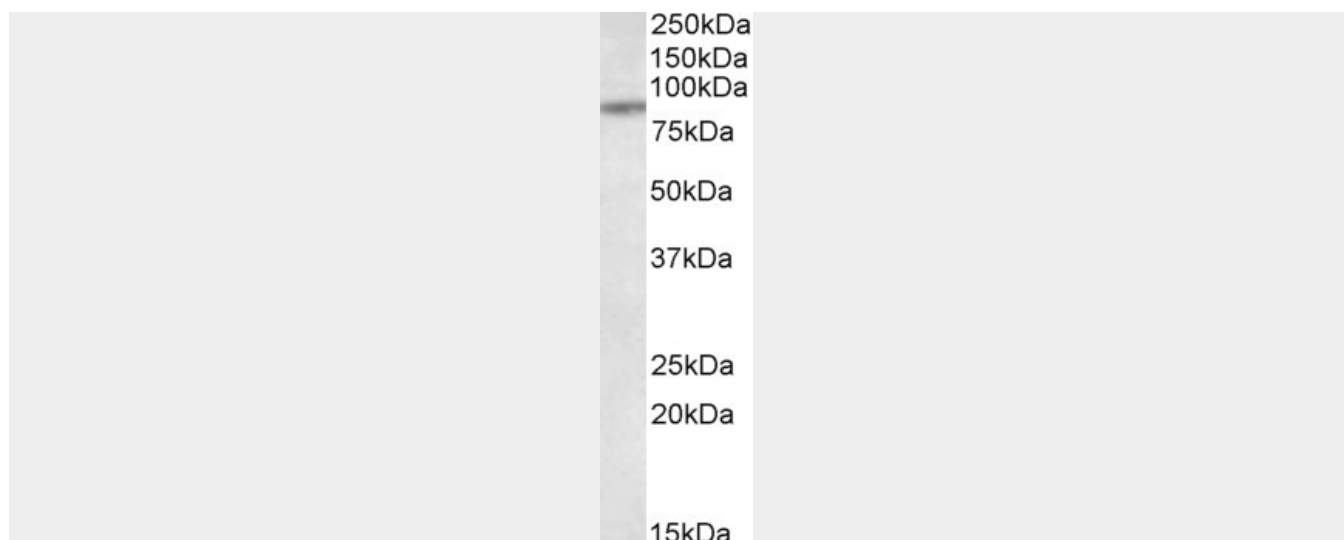
TAP1 Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TAP1 Antibody (internal region) - Images





AF2832a (1 µg/ml) staining of MCF7 lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

TAP1 Antibody (internal region) - References

Identification of domain boundaries within the N-termini of TAP1 and TAP2 and their importance in tapasin binding and tapasin-mediated increase in peptide loading of MHC class I Procko E, Raghuraman G, Wiley DC, Raghavan M, Gaudet R Immunol Cell Biol. 2005 Oct;83(5):475-82 PMID: 16174096