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TRBC1 Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20913a

Specification

TRBC1 Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	P01850
Other Accession	A0A5B9
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**19769**
Antigen Region	**104-136**

TRBC1 Antibody (Center) - Additional Information

Other Names
T-cell receptor beta-1 chain C region, TRBC1

Target/Specificity
This TRBC1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 104-136 amino acids from the Central region of human TRBC1.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

Precautions
TRBC1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

TRBC1 Antibody (Center) - Protein Information

Name TRBC1 {ECO:0000303|Ref.7}

Function Constant region of T cell receptor (TR) beta chain (PubMed:24600447). Alpha-beta T cell receptors are antigen specific receptors which are essential to the immune response and are present on the cell surface of T lymphocytes. Recognize peptide-major histocompatibility (MH)

(pMH) complexes that are displayed by antigen presenting cells (APC), a prerequisite for efficient T cell adaptive immunity against pathogens (PubMed:25493333). Binding of alpha-beta TR to pMH complex initiates TR-CD3 clustering on the cell surface and intracellular activation of LCK that phosphorylates the ITAM motifs of CD3G, CD3D, CD3E and CD247 enabling the recruitment of ZAP70. In turn, ZAP70 phosphorylates LAT, which recruits numerous signaling molecules to form the LAT signalosome. The LAT signalosome propagates signal branching to three major signaling pathways, the calcium, the mitogen- activated protein kinase (MAPK) kinase and the nuclear factor NF-kappa- B (NF-kB) pathways, leading to the mobilization of transcription factors that are critical for gene expression and essential for T cell growth and differentiation (PubMed:23524462, PubMed:9382891). The T cell repertoire is generated in the thymus, by V-(D)-J rearrangement. This repertoire is then shaped by intrathymic selection events to generate a peripheral T cell pool of self-MH restricted, non- autoaggressive T cells. Post-thymic interaction of alpha-beta TR with the pMH complexes shapes TR structural and functional avidity (PubMed:15040585).

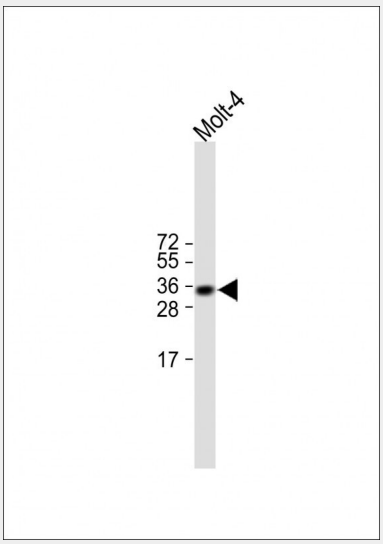
Cellular Location
Cell membrane.

TRBC1 Antibody (Center) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TRBC1 Antibody (Center) - Images



All lanes : Anti-TRBC1 Antibody (Center) at 1:500 dilution Lane 1: Molt-4 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Observed band size : 34 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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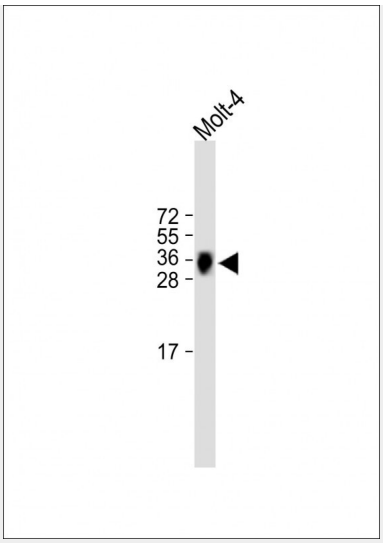
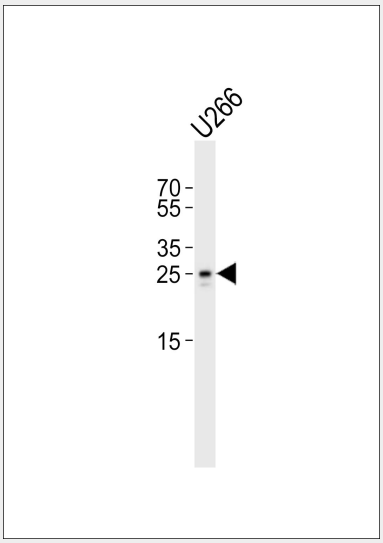


All lanes : Anti-TRBC1 Antibody (Center) at 1:500 dilution Lane 1: Molt-4 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Observed band size : 36 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of lysate from U266 cell line, using TRBC1 Antibody (Center)(Cat. #AP20913a). AP20913a was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.

TRBC1 Antibody (Center) - References

Yanagi Y.,et al.Nature 308:145-149(1984).
Tunnacliffe A.,et al.Proc. Natl. Acad. Sci. U.S.A. 82:5068-5072(1985).
Rowen L.,et al.Science 272:1755-1762(1996).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Hillier L.W.,et al.Nature 424:157-164(2003).