10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

TRBC1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20913a

Product Information

Application	WB, E
Primary Accession	P01850
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB45122
Calculated MW	19769

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~~1：500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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.

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

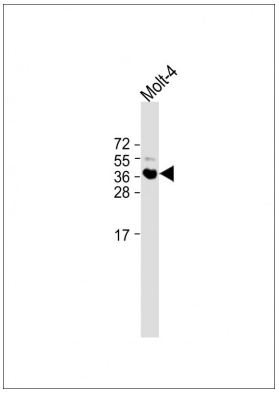
CD3G, CD3D, CD3E and CD247 enabling the recruitment of ZAP70. In turn, ZAP70 phosphorylates LAT, which recruits numerous signaling molecules to form the LAT signalosome. The LAT signalosome propagates signal branching to three major signaling pathways, the calcium, the mitogen- activated protein kinase (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.

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).

Images



All lanes : Anti-TRBC1 Antibody (Center) at 1:1000 dilution Lane 1:Molt-4 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 34kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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