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DENND1B Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10381A

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q6P3S1
Other Accession	Q3U1T9, NP_001182144.1, NP_001182145.1
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB28056
Calculated MW	86552
Antigen Region	39-68

Additional Information

Gene ID	163486
Other Names	DENN domain-containing protein 1B, Connecdenn 2, Protein FAM31B, DENND1B, C1orf218, FAM31B
Target/Specificity	This DENND1B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 39-68 amino acids from the N-terminal region of human DENND1B.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	DENND1B Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DENND1B (HGNC:28404)
Function	Guanine nucleotide exchange factor (GEF) for RAB35 that acts as a regulator

	of T-cell receptor (TCR) internalization in TH2 cells (PubMed:20154091, PubMed:20937701, PubMed:24520163, PubMed:26774822). Acts by promoting the exchange of GDP to GTP, converting inactive GDP- bound RAB35 into its active GTP-bound form (PubMed:20154091, PubMed:20937701). Plays a role in clathrin-mediated endocytosis (PubMed:20154091). Controls cytokine production in TH2 lymphocytes by controlling the rate of TCR internalization and routing to endosomes: acts by mediating clathrin-mediated endocytosis of TCR via its interaction with the adapter protein complex 2 (AP-2) and GEF activity (PubMed:26774822). Dysregulation leads to impaired TCR down-modulation and recycling, affecting cytokine production in TH2 cells (PubMed:26774822).
Cellular Location	Cytoplasm, cytosol. Cytoplasmic vesicle, clathrin-coated vesicle
Tissue Location	Highly expressed in dendritic and natural killer cells and at lower levels in other myeloid lineage cells and in pituitary. Significantly up-regulated in effector memory T-cells as compared with naive T-cells.

Background

Clathrin (see MIM 118955)-mediated endocytosis is a major mechanism for internalization of proteins and lipids. Members of the connecdenn family, such as DENND1B, function as guanine nucleotide exchange factors (GEFs) for the early endosomal small GTPase RAB35 (MIM 604199) and bind to clathrin and clathrin adaptor protein-2 (AP2; see MIM 601024). Thus, connecdenns link RAB35 activation with the clathrin machinery (Marat and McPherson, 2010 [PubMed 20154091]).

References

Marat, A.L., et al. J. Biol. Chem. 285(14):10627-10637(2010)
Sleiman, P.M., et al. N. Engl. J. Med. 362(1):36-44(2010)
Venter, J.C., et al. Science 291(5507):1304-1351(2001)

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