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ADAP Antibody

Catalog # ASC10560

Product Information

Application	WB, IF, ICC, E
Primary Accession	O15117
Other Accession	NP_001456, 42476118
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	85387
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ADAP antibody can be used for detection of ADAP by Western blot at 0.5 - 1 g/mL. Antibody can also be used for immunocytochemistry starting at 10 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	2533
Other Names	FYN-binding protein, Adhesion and degranulation promoting adaptor protein, ADAP, FYB-120/130, p120/p130, FYN-T-binding protein, SLAP-130, SLP-76-associated phosphoprotein, FYB, SLAP130
Target/Specificity	FYB;
Reconstitution & Storage	ADAP antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	ADAP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FYB1 (HGNC:4036)
Synonyms	FYB, SLAP130
Function	Acts as an adapter protein of the FYN and LCP2 signaling cascades in T-cells (By similarity). May play a role in linking T-cell signaling to remodeling of the actin cytoskeleton (PubMed:10747096, PubMed:16980616). Modulates the expression of IL2 (By similarity). Involved in platelet activation (By similarity). Prevents the degradation of SKAP1 and SKAP2 (PubMed:15849195). May be involved in high affinity immunoglobulin epsilon receptor signaling in mast

	cells (By similarity).
Cellular Location	Cytoplasm. Nucleus {ECO:0000255|PROSITE-ProRule:PRU00768}. Cell junction {ECO:0000250|UniProtKB:O35601}. Note=Colocalizes with TMEM47 at cell-cell contacts in podocytes. {ECO:0000250|UniProtKB:O35601}
Tissue Location	Expressed in hematopoietic tissues such as myeloid and T-cells, spleen and thymus. Not expressed in B-cells, nor in non- lymphoid tissues

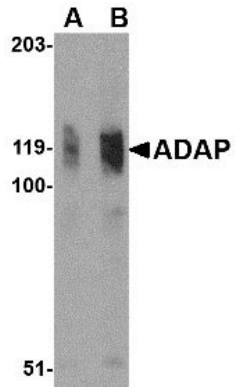
Background

ADAP Antibody: The adhesion and degranulation adaptor protein (ADAP) was initially identified as a molecular adapter that couples T cell receptor (TCR) stimulation to the avidity of integrins governing T cell adhesion. TCR stimulation promotes the formation of a multi-protein complex containing CARMA1, MALT1, and BCL-10, which through the association of ADAP, ultimately activates the NF-κB family of transcription factors. More recent experiments have shown that ADAP controls optimal T cell proliferation, cytokine production, and expression of the Bcl-2 family member Bcl-x(L), suggesting that ADAP regulates T cell activation by promoting antigen-dependent T cell-antigen presenting cell (APC) activation. At least three isoforms of ADAP are known to exist.

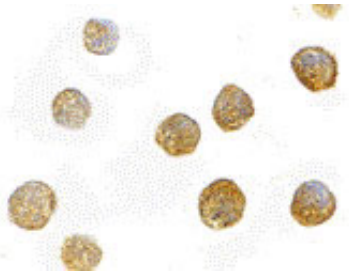
References

Griffiths EK, Krawczyk C, Kong YY, et al. Positive regulation of T cell activation and integrin adhesion by the adapter Fyb/Slap. Science2001; 293:2260-3.
Rawlings DJ, Sommer K, and Moreno-Garcia ME. The CARMA1 signalosome links the signalling machinery of adaptive and innate immunity in lymphocytes. Nat. Rev. Immunol.2006; 6:799-812.
Medeiros RB, Burbach BJ, Mueller KL, et al. Regulation of NF-kappaB activation in T cells via association of the adapter proteins ADAP and CARMA1. Science2007; 316:754-8.
Mueller KL, Thomas MS, Burbach BJ, et al. Adhesion and degranulation-promoting adapter protein (ADAP) positively regulates T cell sensitivity to antigen and T cell survival. J. Immunol.2007; 179:3559-69.

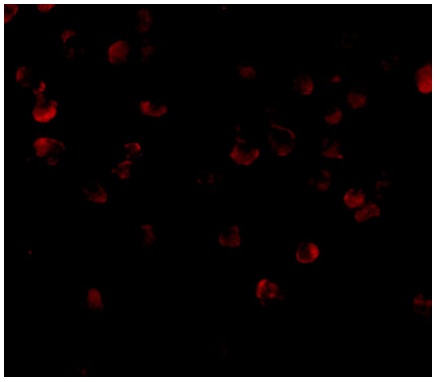
Images



Western blot analysis of ADAP in K562 cell lysate with ADAP antibody at (A) 0.5 and (B) 1 µg/mL.



Immunocytochemistry of ADAP in K562 cells with ADAP antibody at 10 µg/mL.



Immunofluorescence of ADAP in K562 cells with ADAP antibody at 20 µg/mL.