

ADAP Antibody

Catalog # ASC10559

Specification

ADAP Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Application Notes WB, IF, ICC, E <u>O15117</u> <u>NP_001456</u>, <u>42476118</u> Human, Mouse Rabbit Polyclonal IgG ADAP antibody can be used for detection of ADAP by Western blot at 0.5 - 1 μg/mL. Antibody can also be used for immunocytochemistry starting at 10 μg/mL. For immunofluorescence start at 20 μg/mL.

ADAP Antibody - Additional Information

Gene ID Target/Specificity FYB;

Reconstitution & Storage

ADAP antibody can be stored at 4°C for three months and -20°C, 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.

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Precautions

ADAP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ADAP Antibody - 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

ADAP Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

ADAP Antibody - 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.



ADAP Antibody - 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.

ADAP Antibody - 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.