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DAP12 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV11003

Specification

DAP12 Antibody - Product Information

Application	**WB**
Primary Accession	O54885
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**12367**

DAP12 Antibody - Additional Information

Gene ID 22177

Application & Usage	**Western blot analysis (0.5-4 µg/ml). However, the optimal conditions should be determined individually.**

Other Names
DAP-12, DAP 12, DAP12, TYRO protein tyrosine kinase binding protein , TYROBP

Target/Specificity
DAP12

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.5 mg/ml) affinity purified rabbit anti-DAP12 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 0.01% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
DAP12 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

DAP12 Antibody - Protein Information

Name Tyrobp {ECO:0000312|MGI:MGI:1277211}

Function
Adapter protein which non-covalently associates with activating receptors found on the surface of a variety of immune cells to mediate signaling and cell activation following ligand binding by the receptors (PubMed:15471863, PubMed:9647200). TYROBP is tyrosine- phosphorylated in the ITAM domain following ligand binding by the associated receptors which leads to activation of additional tyrosine kinases and subsequent cell activation (PubMed:15728241, PubMed:16715077). Also has an inhibitory role in some cells (PubMed:21727189).
Non-covalently associates with activating receptors of the CD300 family to mediate cell activation (By similarity). Also mediates cell activation through association with activating receptors of the CD200R family (PubMed:15471863). Required for neutrophil activation mediated by integrin (PubMed:17086186). Required for the activation of myeloid cells mediated by the CLEC5A/MDL1 receptor (By similarity). Associates with natural killer (NK) cell receptors such as the KLRD1/KLRC2 heterodimer to mediate NK cell activation (By similarity). Also associates non-covalently with the NK cell receptors KLRA4/LY49D and KLRA8/LY49H which leads to NK cell activation (PubMed:9647200). Associates with TREM1 to mediate activation of neutrophils and monocytes (By similarity). Associates with TREM2 on monocyte-derived dendritic cells to mediate up-regulation of chemokine receptor CCR7 and dendritic cell maturation and survival (By similarity). Association with TREM2 mediates cytokine-induced formation of multinucleated giant cells which are formed by the fusion of macrophages (PubMed:18957693). Stabilizes the TREM2 C-terminal fragment (TREM2-CTF) which is produced by TREM2 ectodomain shedding (By similarity). In microglia, required with TREM2 for phagocytosis of apoptotic neurons (PubMed:15728241). Required with ITGAM/CD11B in microglia to control production of microglial superoxide ions which promote the neuronal apoptosis that occurs during brain development (PubMed:18685038). Promotes pro-inflammatory responses in microglia following nerve injury which accelerates degeneration of injured neurons (PubMed:25690660). Positively regulates the expression of the IRAK3/IRAK-M kinase and IL10 production by liver dendritic cells and inhibits their T cell allostimulatory ability (PubMed:21257958). Negatively regulates B cell proliferation (PubMed:21727189). Required for CSF1-mediated osteoclast cytoskeletal organization (PubMed:18691974). Positively regulates multinucleation during osteoclast development (PubMed:12569157, PubMed:14969392).

Cellular Location
Cell membrane; Single-pass type I membrane protein

Tissue Location
Expressed on microglia (at protein level) (PubMed:12569157, PubMed:18685038). Expressed on oligodendrocytes (at protein level) (PubMed:12569157). Expressed on macrophages and osteoclasts (PubMed:14969392). Expressed on dendritic cells in liver, spleen, kidney and lung with

highest levels in liver dendritic cells (PubMed:21257958).

DAP12 Antibody - 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

DAP12 Antibody - Images

DAP12 Antibody - Background

DAP12 (KARAP) is a natural killer (NK) cell-expressed cell surface receptor and belongs to the immunoglobulin and C-type lectin superfamily. Unlike other members of this family which possess immunoreceptor tyrosine-based inhibitory motifs (ITIM), DAP12 contains an immunoreceptor tyrosine-based activation motif (ITAM) in its cytoplasmic domain and is present as a disulphide-bonded homodimer. Crosslinking of DAP 12-KIR complexes (membrane glycoproteins of the killer-cell inhibitory receptor family without an ITIM in their cytoplasmic domain) results in cellular activation.