

DAP12 (D7G1X) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:
W, W-S, IP	H M	Endogenous	10, 12	Rabbit IgG

Product Usage Information**Application**

Western Blotting
Simple Western™
Immunoprecipitation

Dilution

1:1000
1:10 - 1:50
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

DAP12 (D7G1X) Rabbit mAb recognizes endogenous levels of total DAP12 protein.

Species predicted to react based on 100% sequence homology

Monkey, Bovine, Dog

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human DAP12 protein.

Background

DNAX-activating protein 12 (DAP12, TYROBP) is a signaling adaptor for several pathogen receptors expressed by cells of the innate immune system (1). The DAP12 protein structure consists of a short extracellular domain, a transmembrane domain, and a cytoplasmic immunoreceptor tyrosine-based activation motif (ITAM) (2). DAP12 protein is expressed by hematopoietic cells, including NK cells, monocytes, macrophages, dendritic cells, mast cells, basophils, eosinophils, neutrophils, and some γδ T cells and NKT cells (1). DAP12 exists as a homodimer that associates with a variety of receptors involved in pathogen detection, including the KIR family of NK cell receptors (2,3). Ligand binding by DAP12-associated receptors results in phosphorylation of tyrosine residues within the DAP12 ITAM by Src family kinases and leads to activation of Syk or Zap-70 and downstream signaling responses (2).

Background References

1. Lanier, L.L. (2009) *Immunol Rev* 227, 150-60.
2. Lanier, L.L. et al. (1998) *Nature* 391, 703-7.
3. Bakker, A.B. et al. (1999) *Proc Natl Acad Sci U S A* 96, 9792-6.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **W-S:** Simple Western™ **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse

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