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MAVS Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP13783b

Specification

MAVS Antibody (C-term) Blocking peptide - Product Information

Primary Accession Q7Z434

MAVS Antibody (C-term) Blocking peptide - Additional Information

Gene ID 57506

Other Names
Mitochondrial antiviral-signaling protein, MAVS, CARD adapter inducing interferon beta, Cardif, Interferon beta promoter stimulator protein 1, IPS-1, Putative NF-kappa-B-activating protein 031N, Virus-induced-signaling adapter, VISA, MAVS, IPS1, KIAA1271, VISA

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13783b was selected from the C-term region of MAVS. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MAVS Antibody (C-term) Blocking peptide - Protein Information

Name MAVS {ECO:0000303|PubMed:16125763, ECO:0000312|HGNC:HGNC:29233}

Function
Adapter required for innate immune defense against viruses (PubMed:16125763, PubMed:16127453, PubMed:16153868, PubMed:16177806, PubMed:19631370, PubMed:20127681, PubMed:20451243, PubMed:21170385, PubMed:23087404, PubMed:27992402, PubMed:<a

href="http://www.uniprot.org/citations/33139700" target="_blank">33139700, PubMed:37582970). Acts downstream of DHX33, RIGI and IFIH1/MDA5, which detect intracellular dsRNA produced during viral replication, to coordinate pathways leading to the activation of NF-kappa-B, IRF3 and IRF7, and to the subsequent induction of antiviral cytokines such as IFNB and RANTES (CCL5) (PubMed:16125763, PubMed:16127453, PubMed:16153868, PubMed:16177806, PubMed:19631370, PubMed:20127681, PubMed:20451243, PubMed:20628368, PubMed:21170385, PubMed:23087404, PubMed:25636800, PubMed:27736772, PubMed:33110251). Peroxisomal and mitochondrial MAVS act sequentially to create an antiviral cellular state (PubMed:20451243). Upon viral infection, peroxisomal MAVS induces the rapid interferon-independent expression of defense factors that provide short-term protection, whereas mitochondrial MAVS activates an interferon-dependent signaling pathway with delayed kinetics, which amplifies and stabilizes the antiviral response (PubMed:20451243). May activate the same pathways following detection of extracellular dsRNA by TLR3 (PubMed:16153868). May protect cells from apoptosis (PubMed:16125763). Involved in NLRP3 inflammasome activation by mediating NLRP3 recruitment to mitochondria (PubMed:23582325).

Cellular Location
Mitochondrion outer membrane; Single-pass membrane protein. Mitochondrion. Peroxisome

Tissue Location
Present in T-cells, monocytes, epithelial cells and hepatocytes (at protein level). Ubiquitously expressed, with highest levels in heart, skeletal muscle, liver, placenta and peripheral blood leukocytes.

MAVS Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

MAVS Antibody (C-term) Blocking peptide - Images

MAVS Antibody (C-term) Blocking peptide - Background

Double-stranded RNA viruses are recognized in a celltype-dependent manner by the transmembrane receptor TLR3 (MIM603029) or by the cytoplasmic RNA helicases MDA5 (MIM 606951) andRIGI (ROBO3; MIM 608630). These interactions initiate signalingpathways that differ in their initial steps but converge in theactivation of the protein kinases IKKA (CHUK; MIM 600664) and IKKB(IKBKB; MIM 603258), which activate NFKB (see MIM 164011), or TBK1(MIM 604834) and IKKE (IKBKE; MIM 605048), which activate IRF3 (MIM603734). Activated IRF3 and NFKB induce transcription of IFNB(IFNB1; MIM 147640). For the TLR3 pathway, the intermediarymolecule before

the pathways converge is the cytoplasmic proteinTRIF (TICAM1; MIM 607601). For RIGI, the intermediary protein ismitochondria-bound IPS1 (Sen and Sarkar, 2005 [PubMed16239922]).

MAVS Antibody (C-term) Blocking peptide - References

Sebastiani, P., et al. Science (2010) In press :Wang, X., et al. Cell. Mol. Immunol. 7(5):341-348(2010)Graef, K.M., et al. J. Virol. 84(17):8433-8445(2010)Wei, C., et al. J. Immunol. 185(2):1158-1168(2010)Onoguchi, K., et al. PLoS Pathog. 6 (7), E1001012 (2010) :