

MAVS (m): 293T Lysate: sc-127129

BACKGROUND

MAVS (mitochondrial antiviral-signaling protein), also known as IPS1, KIAA1271, VISA or CARDIF, is a 540 amino acid protein that contains one CARD domain and several transmembrane domains, and localizes to the outer mitochondrial membrane. Expressed throughout the body with highest expression in liver, heart, placenta, skeletal muscle and peripheral blood leukocytes, MAVS functions downstream of proteins, such as RIG-I, that detect double-stranded (ds) viral replication and is required for proper immune response against ds viral infection. MAVS is thought to activate pathways that lead to the induction of antiviral cytokines and may protect the cells from viral-induced apoptosis. MAVS function can be inactivated via cleavage by a protease complex that degrades the CARD and transmembrane domains, thereby preventing MAVS from interacting with other proteins. Three isoforms of MAVS are expressed due to alternative splicing events.

REFERENCES

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- Saha, S.K., et al. 2006. Regulation of antiviral responses by a direct and specific interaction between TRAF3 and CARDIF. *EMBO J.* 25: 3257-3263.
- Opitz, B., et al. 2006. *Legionella pneumophila* induces IFN- β in lung epithelial cells via IPS-1 and IRF3, which also control bacterial replication. *J. Biol. Chem.* 281: 36173-36179.
- Lin, R., et al. 2006. Dissociation of a MAVS/IPS-1/VISA/CARDIF-IKK ϵ molecular complex from the mitochondrial outer membrane by hepatitis C virus NS3-4A proteolytic cleavage. *J. Virol.* 80: 6072-6083.
- Loo, Y.M., et al. 2006. Viral and therapeutic control of IFN- β promoter stimulator 1 during hepatitis C virus infection. *Proc. Natl. Acad. Sci. USA* 103: 6001-6006.
- Cheng, G., et al. 2006. Inhibition of dsRNA-induced signaling in hepatitis C virus-infected cells by NS3 protease-dependent and -independent mechanisms. *Proc. Natl. Acad. Sci. USA* 103: 8499-8504.
- Hirata, Y., et al. 2007. Activation of innate immune defense mechanisms by signaling through RIG-I/IPS-1 in intestinal epithelial cells. *J. Immunol.* 179: 5425-5432.

CHROMOSOMAL LOCATION

Genetic locus: D430028G21Rik (mouse) mapping to 2 F1.

PRODUCT

MAVS (m): 293T Lysate represents a lysate of mouse MAVS transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

MAVS (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive MAVS antibodies. Recommended use: 10-20 μ l per lane.

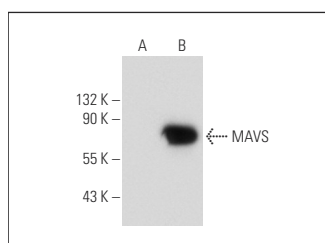
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

MAVS (C-1): sc-365333 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse MAVS expression in MAVS transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

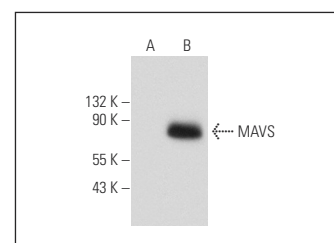
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



MAVS (C-1): sc-365333. Western blot analysis of MAVS expression in non-transfected: sc-117752 (A) and mouse MAVS transfected: sc-127129 (B) 293T whole cell lysates.



MAVS (E-6): sc-365334. Western blot analysis of MAVS expression in non-transfected: sc-117752 (A) and mouse MAVS transfected: sc-127129 (B) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.