

# MAVS (M-300): sc-68881

## 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

- Li, X.D., et al. 2005. Hepatitis C virus protease NS3/4A cleaves mitochondrial antiviral signaling protein off the mitochondria to evade innate immunity. *Proc. Natl. Acad. Sci. USA* 102: 17717-17722.
- 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

MAVS (M-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping within an N-terminal cytoplasmic domain of MAVS of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

MAVS (M-300) is recommended for detection of MAVS of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MAVS siRNA (m): sc-75756, MAVS shRNA Plasmid (m): sc-75756-SH and MAVS shRNA (m) Lentiviral Particles: sc-75756-V.

Molecular Weight of cleaved MAVS: 51-54 kDa.

Molecular Weight of endogenous MAVS: 57 kDa.

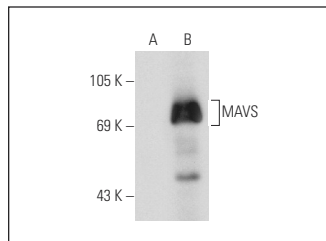
Molecular Weight of aggregated MAVS: 75 kDa.

Positive Controls: MAVS (m): 293T Lysate: sc-127129 or mouse heart extract: sc-2254.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



MAVS (M-300): sc-68881. Western blot analysis of MAVS expression in non-transfected: sc-117752 (A) and mouse MAVS transfected: sc-127129 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- You, F., et al. 2009. PCBP2 mediates degradation of the adaptor MAVS via the HECT ubiquitin ligase AIP4. *Nat. Immunol.* 10: 1300-1308.
- Chen, S., et al. 2013. Enhancer of zeste homolog 2 is a negative regulator of mitochondria-mediated innate immune responses. *J. Immunol.* 191: 2614-2623.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

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



Try **MAVS (E-3): sc-166583** or **MAVS (E-6): sc-365334**, our highly recommended monoclonal alternatives to MAVS (M-300). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **MAVS (E-3): sc-166583**.