

WASP (F-8): sc-365859

BACKGROUND

The Wiskott-Aldrich syndrome (WAS) is a disorder that results from a monogenic defect that has been mapped to the short arm of the X chromosome. WAS is characterized by thrombocytopenia, eczema, defects in cell-mediated and humoral immunity and a propensity for lymphoproliferative disease. The gene that is mutated in the syndrome encodes a proline-rich protein of unknown function designated WAS protein (WASP). A clue to WASP function came from the observation that T cells from affected males had an irregular cellular morphology and a disarrayed cytoskeleton suggesting the involvement of WASP in cytoskeletal organization. Close examination of the WASP sequence revealed a putative Cdc42/Rac interacting domain, homologous with those found in PAK65 and ACK. Subsequent investigation has shown WASP to be a true downstream effector of Cdc42.

CHROMOSOMAL LOCATION

Genetic locus: WAS (human) mapping to Xp11.23; Was (mouse) mapping to X A1.1.

SOURCE

WASP (F-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 197-222 within an internal region of WASP of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365859 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

WASP (F-8) is recommended for detection of WASP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

WASP (F-8) is also recommended for detection of WASP in additional species, including canine.

Suitable for use as control antibody for WASP siRNA (h): sc-29525, WASP siRNA (m): sc-36830, WASP shRNA Plasmid (h): sc-29525-SH, WASP shRNA Plasmid (m): sc-36830-SH, WASP shRNA (h) Lentiviral Particles: sc-29525-V and WASP shRNA (m) Lentiviral Particles: sc-36830-V.

Molecular Weight of WASP: 66 kDa.

Positive Controls: TK-1 whole cell lysate: sc-364798, BJAB whole cell lysate: sc-2207 or Ramos cell lysate: sc-2216.

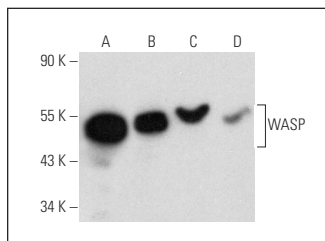
RESEARCH USE

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

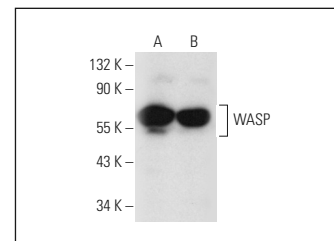
STORAGE

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

DATA



WASP (F-8): sc-365859. Western blot analysis of WASP expression in MOLT-4 (A), TK-1 (B), WEHI-3 (C) and RBL-1 (D) whole cell lysates.



WASP (F-8): sc-365859. Western blot analysis of WASP expression in BJAB (A) and Ramos (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Shrivastava, A., et al. 2015. Slit2N inhibits transmission of HIV-1 from dendritic cells to T-cells by modulating novel cytoskeletal elements. *Sci. Rep.* 5: 16833.
- Janssen, E., et al. 2016. A DOCK8-WIP-WASp complex links T cell receptors to the Actin cytoskeleton. *J. Clin. Invest.* 126: 3837-3851.
- Baron, L., et al. 2016. Mycolactone subverts immunity by selectively blocking the Sec61 translocon. *J. Exp. Med.* 213: 2885-2896.
- Kuznetsov, N.V., et al. 2017. Nuclear Wiskott-Aldrich syndrome protein co-regulates T cell factor 1-mediated transcription in T cells. *Genome Med.* 9: 91.
- Keszei, M., et al. 2018. Constitutive activation of WASp in X-linked neutropenia renders neutrophils hyperactive. *J. Clin. Invest.* 128: 4115-4131.
- Muñoz, P., et al. 2020. WAS promoter-driven lentiviral vectors mimic closely the lopsided WASP expression during megakaryocytic differentiation. *Mol. Ther. Methods Clin. Dev.* 19: 220-235.
- Li, Y., et al. 2021. WASP is crucial for the unique architecture of the immunological synapse in germinal center B-cells. *Front. Cell Dev. Biol.* 9: 646077.
- Titelbaum, M., et al. 2021. Ezh2 harnesses the intranuclear Actin cytoskeleton to remodel chromatin in differentiating Th cells. *iScience* 24: 103093.
- He, M., et al. 2021. Overactive WASP in XLN leads to aberrant B cell division and accelerated plasma cell generation. *J. Allergy Clin. Immunol.* E-published.

CONJUGATES

See **WASP (B-9): sc-13139** for WASP antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.