SANTA CRUZ BIOTECHNOLOGY, INC.

WIP (A-7): sc-271113

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mutations in the Wiskott-Aldrich syndrome protein (WASP) often result in immunodeficiency due to abnormal T cell and B cell activation. The 503 amino acid WAS-interacting protein (WIP) contains a number of domains implicated in Actin-binding and several putative Src homology-binding domains. The first 100 amino acids of WASP interact with amino acids 377-503 of WIP, and the majority of pathogenic mutations associated with WAS occur within the first 100 amino acids of WASP. The gene encoding human WIP maps to chromosome 2q31.1. Overexpression of WIP in the human B cell line BJAB increases F-Actin content and cerebriform projections. While both WIP and Vav cooperate in the regulation of NF-AT/AP-1 gene transcription, the WIP-WASP complex is required for activation of NF-AT/AP-1 necessary for proper T cell function. A dysfunctional WIP-WASP complex may be implicated in the immunodeficient phenotype in WAS.

CHROMOSOMAL LOCATION

Genetic locus: WIPF1 (human) mapping to 2q31.1; Wipf1 (mouse) mapping to 2 C3.

SOURCE

WIP (A-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 178-205 near the C-terminus of WIP of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} 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-271113 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

WIP (A-7) is recommended for detection of WIP 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), immunohistochemistry (including paraffin-embedded sections) (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 WIP siRNA (h): sc-37183, WIP siRNA (m): sc-37184, WIP shRNA Plasmid (h): sc-37183-SH, WIP shRNA Plasmid (m): sc-37184-SH, WIP shRNA (h) Lentiviral Particles: sc-37183-V and WIP shRNA (m) Lentiviral Particles: sc-37184-V.

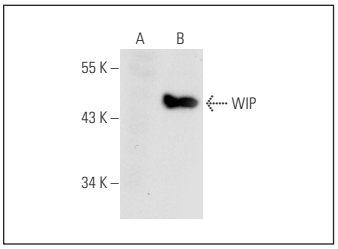
Molecular Weight of WIP: 55 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207 or WIP (h): 293T Lysate: sc-111797.

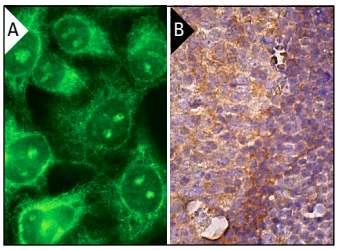
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



WIP (A-7): sc-271113. Western blot analysis of WIP expression in non-transfected: sc-117752 (**A**) and human WIP transfected: sc-111797 (**B**) 293T whole cell lysates.



WIP (A-7): sc-271113. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoskeletal localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing cytoplasmic staining of cells in germinal and non-germinal centers (**B**).

SELECT PRODUCT CITATIONS

1. Weeber, F., et al. 2019. Concerted regulation of Actin polymerization during constitutive secretion by Cortactin and PKD2. J. Cell Sci. 132: jcs232355.
2. Yu, W., et al. 2020. PD-L1 promotes tumor growth and progression by activating WIP and β-catenin signaling pathways and predicts poor prognosis in lung cancer. Cell Death Dis. 11: 506.
3. Li, N., et al. 2020. CX3CR1 positively regulates Bcr signaling coupled with cell metabolism via negatively controlling Actin remodeling. Cell. Mol. Life Sci. 77: 4379-4395.
4. Lattier, J.M., et al. 2020. Megalencephalic leukoencephalopathy with subcortical cysts 1 (MLC1) promotes glioblastoma cell invasion in the brain microenvironment. Oncogene 39: 7253-7264.

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.