SANTA CRUZ BIOTECHNOLOGY, INC.

WIP (C-1): sc-390099

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mutations in the Wiskott-Aldrich syndrome protein (WASP) often result in mmunodeficiency 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.

REFERENCES

1. Derry, J.M., et al. 1994. Isolation of a novel gene mutated in Wiskott-Aldrich syndrome. Cell 78: 635-644.
2. Schwarz, K., et al. 1996. WASPbase: a database of WAS- and XLT-causing mutations. Immunol. Today 17: 496-502.
3. Ramesh, N., et al. 1997. WIP, a protein associated with Wiskott-Aldrich syndrome protein, induces Actin polymerization and redistribution in lymphoid cells. Proc. Natl. Acad. Sci. USA 94: 14671-14676.
4. Stewart, D.M., et al. 1999. Mutations that cause the Wiskott-Aldrich syndrome impair the interaction of Wiskott-Aldrich syndrome protein (WASP) with WASP interacting protien. J. Immunol. 162: 5019-5024.

CHROMOSOMAL LOCATION

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

SOURCE

WIP (C-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 91-129 within an internal region of WIP of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

WIP (C-1) is available conjugated to agarose (sc-390099 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390099 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390099 PE), fluorescein (sc-390099 FITC), Alexa Fluor® 488 (sc-390099 AF488), Alexa Fluor® 546 (sc-390099 AF546), Alexa Fluor® 594 (sc-390099 AF594) or Alexa Fluor® 647 (sc-390099 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390099 AF680) or Alexa Fluor® 790 (sc-390099 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390099 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

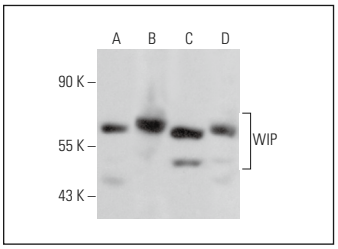
WIP (C-1) is recommended for detection of WIP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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.

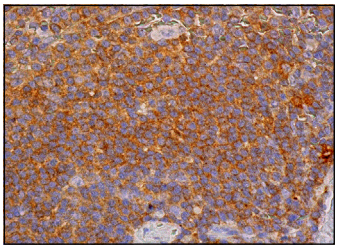
Molecular Weight of WIP: 55 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, NIH/3T3 whole cell lysate: sc-2210 or K-562 whole cell lysate: sc-2203.

DATA



WIP (C-1): sc-390099. Western blot analysis of WIP expression in BJAB (**A**), NCI-H292 (**B**), K-562 (**C**) and NIH/3T3 (**D**) whole cell lysates.



WIP (C-1): sc-390099. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic staining of cells in white pulp and cells in red pulp.

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.

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.

PROTOCOLS

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