

# WIP (H-224): sc-25533

## 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.

## REFERENCES

- Cooper, M.D., et al. 1968. Wiskott-Aldrich syndrome. An immunologic deficiency disease involving the afferent limb of immunity. *Am. J. Med.* 44: 499-513.
- Derry, J.M., et al. 1994. Isolation of a novel gene mutated in Wiskott-Aldrich syndrome. *Cell* 78: 635-644.

## CHROMOSOMAL LOCATION

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

## SOURCE

WIP (H-224) is a rabbit polyclonal antibody raised against amino acids 181-480 (deletion 314-389) of WIP of human origin.

## PRODUCT

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

## APPLICATIONS

WIP (H-224) is recommended for detection of WIP of mouse, rat and human 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), 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.

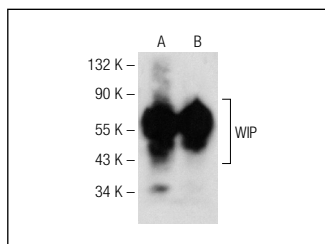
Molecular Weight of WIP: 55 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207 or HL-60 whole cell lysate: sc-2209.

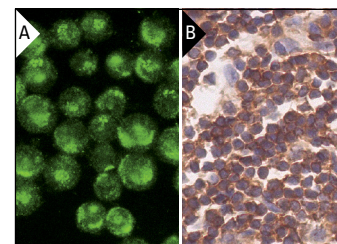
## RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



WIP (H-224): sc-25533. Western blot analysis of WIP expression in BJAB (A) and HL-60 (B) whole cell lysates.



WIP (H-224): sc-25533. Immunofluorescence staining of methanol-fixed BJAB cells showing cytoskeletal localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing cytoplasmic staining of lymphoid cells (B).

## SELECT PRODUCT CITATIONS

- Tsuboi, S. 2007. Requirement for a complex of Wiskott-Aldrich syndrome protein (WASP) with WASP interacting protein in podosome formation in macrophages. *J. Immunol.* 178: 2987-2995.
- Weisswange, I., et al. 2009. The rate of N-WASP exchange limits the extent of Arp2/3-complex-dependent Actin-based motility. *Nature* 458: 87-91.
- Mani, M., et al. 2009. Wiskott-Aldrich syndrome protein is an effector of Kit signaling. *Blood* 114: 2900-2908.

## 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 **WIP (C-1): sc-390099** or **WIP (E-9): sc-271114**, our highly recommended monoclonal alternatives to WIP (H-224).