SANTA CRUZ BIOTECHNOLOGY, INC.

WIP (82.6): sc-135805

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.

REFERENCES

1. 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.
2. Derry, J.M., et al. 1994. Isolation of a novel gene mutated in Wiskott-Aldrich syndrome. Cell 78: 635-644.
3. Schwarz, K., et al. 1996. WASP base: a database of WAS- and XLT-causing mutations. Immunol. Today 17: 496-502.
4. Narayanaswamy, R., 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.
5. 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.

SOURCE

WIP (82.6) is a mouse monoclonal antibody raised against recombinant WIP 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.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

WIP (82.6) is recommended for detection of WIP of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) 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 shRNA Plasmid (h): sc-37183-SH and WIP shRNA (h) Lentiviral Particles: sc-37183-V.

Molecular Weight of WIP: 55 kDa.

Positive Controls: human tonsil tissue, BJAB whole cell lysate: sc-2207 or MCF7 whole cell lysate: sc-2206.

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, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

RESEARCH USE

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