

WIRE (P-13): sc-160920

BACKGROUND

WIRE, also known as WIPF2 (WAS/WASL interacting protein family, member 2) or WICH, is a 440 amino acid protein that localizes to both the cytoplasm and the cytoskeleton and contains one WH2 domain. Expressed ubiquitously with highest expression in colon, brain, lung and stomach, WIRE functions as an N-WASP-interacting protein that plays an important role in the organization and mobilization of the actin cytoskeleton. Additionally, WIRE is involved in the formation of cell surface protrusions and may also provide a link between the cytoskeletal machinery and PDGF-B receptors. Multiple alternatively spliced isoforms of WIRE exist and are encoded by a gene that maps to human chromosome 17.

REFERENCES

1. Fukuoka, M., Suetsugu, S., Miki, H., Fukami, K., Endo, T. and Takenawa, T. 2001. A novel neural Wiskott-Aldrich syndrome protein (N-WASP) binding protein, WISH, induces Arp2/3 complex activation independent of Cdc42. *J. Cell Biol.* 152: 471-482.
2. Nonoyama, S. 2001. Wiskott-Aldrich syndrome (role of WASP). *J. Med. Dent. Sci.* 48: 1-6.
3. Kato, M., Miki, H., Kurita, S., Endo, T., Nakagawa, H., Miyamoto, S. and Takenawa, T. 2002. WICH, a novel verprolin homology domain-containing protein that functions cooperatively with N-WASP in Actin-microspike formation. *Biochem. Biophys. Res. Commun.* 291: 41-47.
4. Aspenström, P. 2002. The WASP-binding protein WIRE has a role in the regulation of the Actin filament system downstream of the platelet-derived growth factor receptor. *Exp. Cell Res.* 279: 21-33.
5. Aspenström, P. 2004. The mammalian verprolin homologue WIRE participates in receptor-mediated endocytosis and regulation of the Actin filament system by distinct mechanisms. *Exp. Cell Res.* 298: 485-498.
6. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 609692. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: WIPF2 (human) mapping to 17q21.1; Wipf2 (mouse) mapping to 11 D.

SOURCE

WIRE (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of WIRE 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.

Blocking peptide available for competition studies, sc-160920 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

WIRE (P-13) is recommended for detection of WIRE 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for WIRE siRNA (h): sc-93684, WIRE siRNA (m): sc-155351, WIRE shRNA Plasmid (h): sc-93684-SH, WIRE shRNA Plasmid (m): sc-155351-SH, WIRE shRNA (h) Lentiviral Particles: sc-93684-V and WIRE shRNA (m) Lentiviral Particles: sc-155351-V.

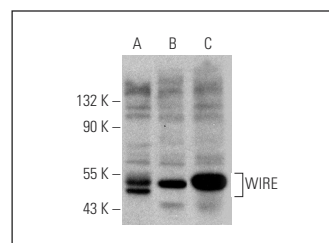
Molecular Weight of WIRE: 46 kDa.

Positive Controls: WIRE (h): 293T Lysate: sc-117025, SK-BR-3 cell lysate: sc-2218 or MCF7 whole cell lysate: sc-2206.

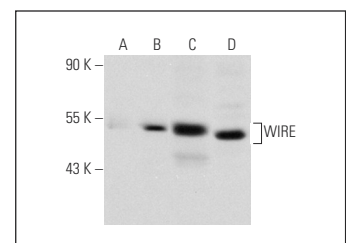
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



WIRE (P-13): sc-160920. Western blot analysis of WIRE expression in ES-2 (A), MCF7 (B) and SK-BR-3 (C) whole cell lysates.



WIRE (P-13): sc-160920. Western blot analysis of WIRE expression in non-transfected 293T: sc-117752 (A), human WIRE transfected 293T: sc-117025 (B), SK-BR-3 (C) and Ramos (D) whole cell lysates.

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 or our catalog for detailed protocols and support products.