

WIZ (S-14): sc-169816

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. WIZ (widely interspaced zinc-finger motifs), also known as ZNF803, is a 1,651 amino acid nuclear protein that belongs to the Krüppel C₂H₂-type zinc-finger protein family and consists of 11 C₂H₂-type zinc fingers. It is suggested that WIZ may link EHMT1 and EHMT2 histone methyltransferases to the CtBP corepressor machinery and may be involved in EHMT1-EHMT2 heterodimer formation and stabilization. Two isoforms exist due to alternative splicing events.

REFERENCES

- Pengue, G., Calabrò, V., Bartoli, P.C., Pagliuca, A. and Lania, L. 1994. Repression of transcriptional activity at a distance by the evolutionarily conserved KRAB domain present in a subfamily of zinc-finger proteins. *Nucleic Acids Res.* 22: 2908-2914.
- Margolin, J.F., Friedman, J.R., Meyer, W.K., Vissing, H., Thiesen, H.J. and Rauscher, F.J. 1994. Krüppel-associated boxes are potent transcriptional repression domains. *Proc. Natl. Acad. Sci. USA* 91: 4509-4513.
- Witzgall, R., O'Leary, E., Leaf, A., Onaldi, D. and Bonventre, J.V. 1994. The Krüppel-associated box-A (KRAB-A) domain of zinc-finger proteins mediates transcriptional repression. *Proc. Natl. Acad. Sci. USA* 91: 4514-4518.
- Vissing, H., Meyer, W.K., Aagaard, L., Tommerup, N. and Thiesen, H.J. 1995. Repression of transcriptional activity by heterologous KRAB domains present in zinc-finger proteins. *FEBS Lett.* 369: 153-157.
- Matsumoto, K., Ishii, N., Yoshida, S., Shiosaka, S., Wanaka, A. and Tohyama, M. 1998. Molecular cloning and distinct developmental expression pattern of spliced forms of a novel zinc finger gene *wiz* in the mouse cerebellum. *Brain Res. Mol. Brain Res.* 61: 179-189.
- Levenson, V.V., Lausch, E., Kirschling, D.J., Brode, E.V., Davidovich, I.A., Libants, S., Fedosova, V. and Roninson, I.B. 1999. A combination of genetic suppressor elements produces resistance to drugs inhibiting DNA replication. *Somat. Cell Mol. Genet.* 25: 9-26.

CHROMOSOMAL LOCATION

Genetic locus: WIZ (human) mapping to 19p13.12; *Wiz* (mouse) mapping to 17 B1.

SOURCE

WIZ (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of WIZ 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-169816 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

WIZ (S-14) is recommended for detection of WIZ 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).

WIZ (S-14) is also recommended for detection of WIZ in additional species, including porcine.

Suitable for use as control antibody for WIZ siRNA (h): sc-97759, WIZ siRNA (m): sc-155352, WIZ shRNA Plasmid (h): sc-97759-SH, WIZ shRNA Plasmid (m): sc-155352-SH, WIZ shRNA (h) Lentiviral Particles: sc-97759-V and WIZ shRNA (m) Lentiviral Particles: sc-155352-V.

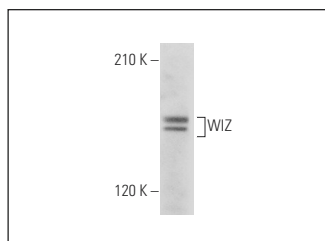
Molecular Weight of WIZ isoforms: 125/135 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136.

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



WIZ (S-14): sc-169816. Western blot analysis of WIZ expression in HEK293 whole cell lysate.

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 or our catalog for detailed protocols and support products.