

WHIP (D-20): sc-55435

BACKGROUND

Werner's syndrome is an inherited, autosomal recessive disorder that is characterized by premature aging and commonly results in cancer. WHIP, also known as WRNIP1 (Werner helicase-interacting protein 1) is a ubiquitously expressed member of the AAA ATPase family that is involved in the regulation of DNA synthesis. Localized to the nucleus, WHIP acts as a modulator for initiation events during DNA polymerase-mediated DNA synthesis and, through its ATPase activity, can detect DNA damage or arrested replication forks. WHIP is found in granular structures within the nucleus, where it interacts with the N-terminal domain of WRN, the protein product of the gene responsible for Werner's syndrome. Due to its close association with WRN, WHIP is thought to be involved in the aging process and thus may play a role in the development of Werner's syndrome. Four isoforms of WHIP are produced due to alternative splicing events.

REFERENCES

1. Branzei, D., et al. 2001. A novel protein interacts with the Werner's syndrome gene product physically and functionally. *J. Biol. Chem.* 276: 20364-20369.
2. Shen, J. and Loeb, L.A. 2001. Unwinding the molecular basis of the Werner syndrome. *Mech. Ageing Dev.* 122: 921-944.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608196. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Comai, L. and Li, B. 2004. The Werner syndrome protein at the crossroads of DNA repair and apoptosis. *Mech. Ageing Dev.* 125: 521-528.

CHROMOSOMAL LOCATION

Genetic locus: WRNIP1 (human) mapping to 6p25.2; Wrnip1 (mouse) mapping to 13 A3.2.

SOURCE

WHIP (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of WHIP 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-55435 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-55435 X, 200 µg/0.1 ml.

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.

APPLICATIONS

WHIP (D-20) is recommended for detection of WHIP 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 WHIP siRNA (h): sc-63222, WHIP siRNA (m): sc-63223, WHIP shRNA Plasmid (h): sc-63222-SH, WHIP shRNA Plasmid (m): sc-63223-SH, WHIP shRNA (h) Lentiviral Particles: sc-63222-V and WHIP shRNA (m) Lentiviral Particles: sc-63223-V.

WHIP (D-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

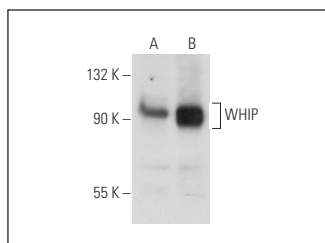
Molecular Weight of WHIP: 72 kDa.

Positive Controls: WHIP (m): 293T Lysate: sc-124643, Jurkat nuclear extract: sc-2132 or IMR-32 nuclear extract: sc-2148.

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



WHIP (D-20): sc-55435. Western blot analysis of WHIP expression in non-transfected: sc-117752 (A) and mouse WHIP transfected: sc-124643 (B) 293T whole cell lysates.

PROTOCOLS

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