

WHIP (A-8): sc-376438

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.

CHROMOSOMAL LOCATION

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

SOURCE

WHIP (A-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-27 at the N-terminus of WHIP of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-376438 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-376438 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

WHIP (A-8) is recommended for detection of WHIP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 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 (A-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

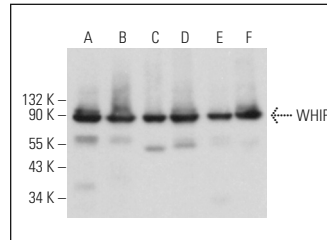
Molecular Weight of WHIP: 72 kDa.

Positive Controls: F9 cell lysate: sc-2245, NTERA-2 cl.D1 whole cell lysate: sc-364181 or Jurkat whole cell lysate: sc-2204.

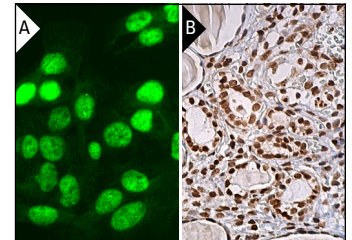
RECOMMENDED SUPPORT REAGENTS

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, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



WHIP (A-8): sc-376438. Western blot analysis of WHIP expression in Jurkat (A), NTERA-2 cl.D1 (B), F9 (C), RPE-J (D) and C6 (E) whole cell lysates and NIH/3T3 nuclear extract (F).



WHIP (A-8): sc-376438. Immunofluorescence staining of formalin-fixed HepG2 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing nuclear staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. Socha, A., et al. 2020. WRNIP1 is recruited to DNA interstrand crosslinks and promotes repair. *Cell Rep.* 32: 107850.

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 for detailed protocols and support products.