

RecQL1 (H-110): sc-25547

BACKGROUND

In humans, the RecQ helicase family includes WRN, BLM, RecQL1, RecQL4 and RecQL5 proteins, all of which contain a conserved helicase domain. WRN and BLM have been demonstrated to be the responsible genes in Werner and Bloom syndromes, respectively. RecQL1 and RecQL5 also belong to the human RecQ helicase family, but their correlation with genetic disorders, if any, is unknown. The gene encoding human RecQL4, which maps to chromosome 8q24.3, is believed to be the gene responsible for the development of Rothmund-Thomson syndrome (RTS). The levels of WRN, BLM, RecQL1, RecQL4 and RecQL5 are differentially upregulated to guarantee genomic stability in cells that are transformed or actively proliferating. In humans, RecQL1 and RecQL5 map to chromosome 12p12.1 and 17q25.1, respectively.

CHROMOSOMAL LOCATION

Genetic locus: RECQL (human) mapping to 12p12.1; Recql (mouse) mapping to 6 G2.

SOURCE

RecQL1 (H-110) is a rabbit polyclonal antibody raised against amino acids 1-110 of RecQL1 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.

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.

APPLICATIONS

RecQL1 (H-110) is recommended for detection of RecQL1 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), 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).

RecQL1 (H-110) is also recommended for detection of RecQL1 in additional species, including bovine.

Suitable for use as control antibody for RecQL1 siRNA (h): sc-38217, RecQL1 siRNA (m): sc-38218, RecQL1 shRNA Plasmid (h): sc-38217-SH, RecQL1 shRNA Plasmid (m): sc-38218-SH, RecQL1 shRNA (h) Lentiviral Particles: sc-38217-V and RecQL1 shRNA (m) Lentiviral Particles: sc-38218-V.

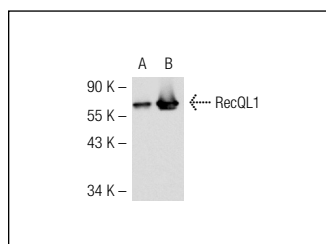
Molecular Weight of RecQL1: 75 kDa.

Positive Controls: RecQL1 (m): 293T Lysate: sc-123053.

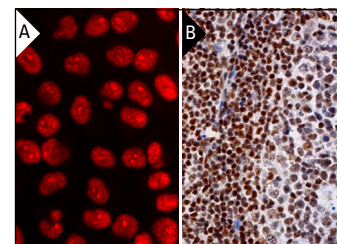
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



RecQL1 (H-110): sc-25547. Western blot analysis of RecQL1 expression in non-transfected: sc-117752 (A) and mouse RecQL1 transfected: sc-123053 (B) 293T whole cell lysates.



RecQL1 (H-110): sc-25547. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing nuclear staining of cells in germinal and non-germinal centers (B).

SELECT PRODUCT CITATIONS

- Kula, A., et al. 2011. Characterization of the HIV-1 RNA associated proteome identifies MatrIn 3 as a nuclear cofactor of Rev function. *Retrovirology* 8: 60.
- Mendoza-Maldonado, R., et al. 2011. The human RECQ1 helicase is highly expressed in glioblastoma and plays an important role in tumor cell proliferation. *Mol. Cancer* 10: 83.
- Berti, M., et al. 2013. Human RECQ1 promotes restart of replication forks reversed by DNA topoisomerase I inhibition. *Nat. Struct. Mol. Biol.* 20: 347-354.

RESEARCH USE

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



Try **RecQL1 (A-9): sc-166388** or **RecQL1 (F-11): sc-166389**, our highly recommended monoclonal alternatives to RecQL1 (H-110).