

RMI1 (N-16): sc-79874

BACKGROUND

Bloom's syndrome (BS) is a rare human genetic disorder characterized by dwarfism, immunodeficiency, genomic instability and cancer predisposition. BS is a result of mutation in the BLM gene, which encodes a protein that forms a multienzyme complex with topoisomerase III α , replication protein A and BLAP75 (also designated RecQ-mediated genome instability protein 1 or RMI1). BLM maintains genome integrity and catalyzes Holliday-junction branch migration and the annealing of complementary single-stranded DNA molecules. BLAP75, an OB-fold nucleic acid binding domain, is essential for the stability of the BLM complex *in vivo*. Specifically, BLAP75 enhances the ability of the BLM-Topo III α pair to branch migrate the Holliday junction or dissolve the double Holliday junction structure to yield non-crossover recombinants. BLAP75 colocalizes with BLM in subnuclear foci in response to DNA damage, and its depletion impairs the recruitment of BLM to these foci.

REFERENCES

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- Raynard, S., et al. 2008. Functional role of BLAP75 in BLM-topoisomerase III α -dependent holliday junction processing. *J. Biol. Chem.* 283: 15701-15708.

CHROMOSOMAL LOCATION

Genetic locus: RMI1 (human) mapping to 9q21.32; Rmi1 (mouse) mapping to 13 B1.

SOURCE

BLAP75 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of BLAP75 of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79874 P, (100 μ g 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-79874 X, 200 μ g/0.1 ml.

APPLICATIONS

RMI1 (N-16) is recommended for detection of RMI1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

RMI1 (N-16) is also recommended for detection of RMI1 in additional species, including bovine.

Suitable for use as control antibody for BLAP75 siRNA (h): sc-72651, BLAP75 siRNA (m): sc-72652, BLAP75 shRNA Plasmid (h): sc-72651-SH, BLAP75 shRNA Plasmid (m): sc-72652-SH, BLAP75 shRNA (h) Lentiviral Particles: sc-72651-V and BLAP75 shRNA (m) Lentiviral Particles: sc-72652-V.

RMI1 (N-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of RMI1: 70 kDa.

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) 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.

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.