SANTA CRUZ BIOTECHNOLOGY, INC.

BOP1 (Y-17): sc-87886

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Predominantly localized to the nucleolus, BOP1 (Block of proliferation 1 protein) is a 746 amino acid highly conserved non-ribosomal protein that is involved in ribosome biogenesis. Truncation of the amino terminus of BOP1 leads to cell growth arrest in the G_1 phase and specific inhibition of 28S and 5.8S rRNA synthesis, as well as a deficit in the cytosolic 60S ribosomal subunit. This suggests that BOP1 is involved in the formation of mature rRNAs and in the biogenesis of the 60S ribosomal subunit. BOP1 physically interacts with pescadillo (a protein involved in cell proliferation) and enables efficient incorporation of pescadillo into the nucleolar preribosomal complexes, thereby affecting rRNA maturation and the cell cycle. The BOP1-pescadillo complex is also necessary for biogenesis of 60S ribosomal subunits. Deregulation of BOP1 may lead to colorectal tumorigenesis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: BOP1 (human) mapping to 8q24.3; Bop1 (mouse) mapping to 15 D3.

SOURCE

BOP1 (Y-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of BOP1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-87886 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BOP1 (Y-17) is recommended for detection of BOP1 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).

BOP1 (Y-17) is also recommended for detection of BOP1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for BOP1 siRNA (h): sc-77739, BOP1 siRNA (m): sc-141727, BOP1 shRNA Plasmid (h): sc-77739-SH, BOP1 shRNA Plasmid (m): sc-141727-SH, BOP1 shRNA (h) Lentiviral Particles: sc-77739-V and BOP1 shRNA (m) Lentiviral Particles: sc-141727-V.

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) 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.

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.