SANTA CRUZ BIOTECHNOLOGY, INC.

BLM hydrolase (A-19): sc-79876

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

BLM hydrolase (bleomycin hydrolase, BMH) is a 455 amino acid protein encoded by the human gene BLMH. BLM hydrolase belongs to the cysteine protease papain superfamily and the peptidase C1 family. It is a cytoplasmic cysteine peptidase commonly found as a homohexamer. It is highly conserved through evolution, however, the only known activity of the enzyme is metabolic inactivation of the glycopeptide bleomycin (BLM). BLM is an essential component of combination chemotherapy regimens for cancer.

REFERENCES

1. Schwartz, D.R., et al. 1999. The neutral cysteine protease bleomycin hydrolase is essential for epidermal integrity and bleomycin resistance. Proc. Natl. Acad. Sci. USA 96: 4680-4685.
2. Riva, P., et al. 2000. NF1 microdeletion syndrome: refined fish characterization of sporadic and familial deletions with locus-specific probes. Am. J. Hum. Genet. 66: 100-109.

CHROMOSOMAL LOCATION

Genetic locus: BLMH (human) mapping to 17q11.2; Blmh (mouse) mapping to 11 B5.

SOURCE

BLM hydrolase (A-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BLM hydrolase 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-79876 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BLM hydrolase (A-19) is recommended for detection of BLM hydrolase 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).

BLM hydrolase (A-19) is also recommended for detection of BLM hydrolase in additional species, including canine and bovine.

Suitable for use as control antibody for BLM hydrolase siRNA (h): sc-72654, BLM hydrolase siRNA (m): sc-72655, BLM hydrolase shRNA Plasmid (h): sc-72654-SH, BLM hydrolase shRNA Plasmid (m): sc-72655-SH, BLM hydrolase shRNA (h) Lentiviral Particles: sc-72654-V and BLM hydrolase shRNA (m) Lentiviral Particles: sc-72655-V.

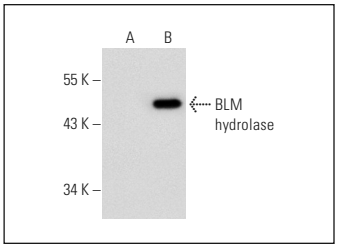
Molecular Weight of BLM hydrolase: 53 kDa.

Positive Controls: BLM hydrolase (m4): 293T Lysate: sc-125060, WEHI-3 cell lysate: sc-3815 or K-562 whole cell lysate: sc-2203.

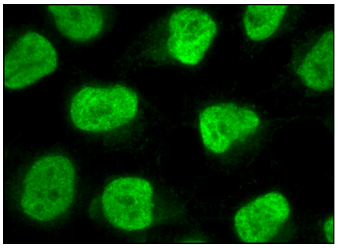
RECOMMENDED SECONDARY REAGENTS

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



BLM hydrolase (A-19): sc-79876. Western blot analysis of BLM hydrolase expression in non-transfected: sc-117752 (**A**) and mouse BLM hydrolase transfected: sc-125060 (**B**) 293T whole cell lysates.



BLM hydrolase (A-19): sc-79876. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

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.