SANTA CRUZ BIOTECHNOLOGY, INC.

BTG2 (C-12): sc-30342

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

B cell translocation gene proteins, also designated BTG-1-4, are members of a novel antiproliferative gene family and play a role in transcription regulation. BTG genes are considered immediate early genes whose expression is induced in response to mitogenic as well as differentiative and antiproliferative factors. Expression of BTG1 is maximal in the G_0/G_1 phases of the cell cycle and is downregulated when cells progress through G_1. BTG2 is a p53 inducible, antiproliferative protein that regulates the G_1/S transition of the cell cycle. BTG2 expression increases in response to DNA damage, cell differentiation, cell quiescence, cell contact and as part of a positive feedback mechanism in response to growth stimulation. High levels of BTG2 are present in kidney proximal tubules, lung alveolar bronchial epithelium, and the basal cell layer of prostate acini. BTG1 and BTG2 both contain LXXLL motifs, referred to as nuclear receptor boxes, which are involved in the regulation of ER-mediated activation. Human BTG3 protein is abundantly expressed in testis, prostate, ovary, thymus and lung.

CHROMOSOMAL LOCATION

Genetic locus: BTG2 (human) mapping to 1q32.1; Btg2 (mouse) mapping to 1 E4.

SOURCE

BTG2 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of BTG2 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-30342 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

BTG2 (C-12) is recommended for detection of BTG2 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).

Suitable for use as control antibody for BTG2 siRNA (h): sc-43645, BTG2 siRNA (m): sc-44818, BTG2 shRNA Plasmid (h): sc-43645-SH, BTG2 shRNA Plasmid (m): sc-44818-SH, BTG2 shRNA (h) Lentiviral Particles: sc-43645-V and BTG2 shRNA (m) Lentiviral Particles: sc-44818-V.

Molecular Weight (predicted) of BTG2: 17 kDa.

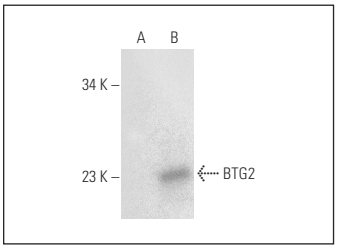
Molecular Weight (observed) of BTG2: 20 kDa.

Positive Controls: BTG2 (h): 293T Lysate: sc-370262.

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



BTG2 (C-12): sc-30342. Western blot analysis of BTG2 expression in non-transfected: sc-117752 (**A**) and human BTG2 transfected: sc-370262 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Slevin, M., et al. 2009. B-cell translocation gene 2 is over-expressed in peri-infarct neurons after ischaemic stroke. Pathobiology 76: 129-135.
2. Shao, J., et al. 2012. Phosphatidylcholine-specific phospholipase C/heat shock protein 70 (Hsp70)/transcription factor B-cell translocation gene 2 signaling in rat bone marrow stromal cell differentiation to cholinergic neuron-like cells. Int. J. Biochem. Cell Biol. 44: 2253-2260.
3. Coppola, V., et al. 2013. BTG2 loss and miR-21 upregulation contribute to prostate cell transformation by inducing luminal markers expression and epithelial-mesenchymal transition. Oncogene 32: 1843-1853.

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.