

BTG2 (H-50): sc-33775

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 G₀/G₁ phases of the cell cycle and is downregulated when cells progress through G₁. BTG2 is a p53 inducible, antiproliferative protein that regulates the G₁/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 (H-50) is a rabbit polyclonal antibody raised against amino acids 1-50 mapping at the N-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.

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.

APPLICATIONS

BTG2 (H-50) 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), 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).

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.

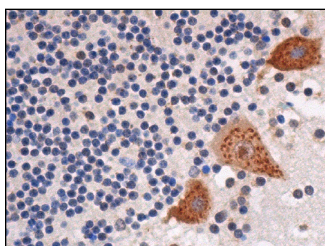
Molecular Weight (predicted) of BTG2: 17 kDa.

Molecular Weight (observed) of BTG2: 20 kDa.

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



BTG2 (H-50): sc-33775. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic staining of Purkinje cells.

SELECT PRODUCT CITATIONS

1. Evangelisti, C., et al. 2009. TIS21/BTG2/PC3 and cyclin D1 are key determinants of nuclear diacylglycerol kinase-zeta-dependent cell cycle arrest. *Cell. Signal.* 21: 801-809.
2. Wheaton, K., et al. 2010. BTG2 antagonizes Pin1 in response to mitogens and telomere disruption during replicative senescence. *Aging Cell* 9: 747-760.
3. Saxena, S., et al. 2013. Neuroprotection through excitability and mTOR required in ALS motoneurons to delay disease and extend survival. *Neuron* 80: 80-96.
4. Gubern, C., et al. 2013. miRNA expression is modulated over time after focal ischaemia: up-regulation of miR-347 promotes neuronal apoptosis. *FEBS J.* 280: 6233-6246.

MONOS
Satisfaction
Guaranteed

Try **BTG2 (1A5): sc-517187**, our highly recommended monoclonal alternative to BTG2 (H-50).