

BTG4 (NB-B3): sc-134287

BACKGROUND

B cell translocation gene proteins, also designated BTG1-4, are members of a novel anti-proliferative 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. They are characterized by the conserved N-terminal domain spanning 104-106 amino acids. BTG4, also designated PC3B, is a 223 amino acid protein that is highly expressed in testis and in olfactory epithelium. BTG4 expression is decreased in primary gastric cancer, but not in normal gastric tissues. BTG4 may be epigenetically silenced in the majority of gastric cancers. BTG4 is also implicated in chronic lymphocytic leukemia (CLL).

REFERENCES

1. Rouault, J.P., et al. 1992. BTG1, a member of a new family of antiproliferative genes. *EMBO J.* 11: 1663-1670.
2. Rouault, J.P., et al. 1996. Identification of BTG2, an antiproliferative p53-dependent component of the DNA damage cellular response pathway. *Nat. Genet.* 14: 482-486.
3. Auer, R.L., et al. 2005. Identification of a potential role for POU2AF1 and BTG4 in the deletion of 11q23 in chronic lymphocytic leukemia. *Genes Chromosomes Cancer* 43: 1-10.
4. Toyota, M., et al. 2008. Epigenetic silencing of microRNA-34b/c and B-cell translocation gene 4 is associated with CpG island methylation in colorectal cancer. *Cancer Res.* 68: 4123-4132.
5. Dong, W., et al. 2009. Frequent promoter hypermethylation and transcriptional downregulation of BTG4 gene in gastric cancer. *Biochem. Biophys. Res. Commun.* 387: 132-138.
6. Winkler, G.S. 2010. The mammalian anti-proliferative BTG/TOB protein family. *J. Cell. Physiol.* 222: 66-72.

CHROMOSOMAL LOCATION

Genetic locus: BTG4 (human) mapping to 11q23.1.

SOURCE

BTG4 (NB-B3) is a mouse monoclonal antibody raised against recombinant BTG4 protein of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain 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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

BTG4 (NB-B3) is recommended for detection of BTG4 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for BTG4 siRNA (h): sc-96824, BTG4 shRNA Plasmid (h): sc-96824-SH and BTG4 shRNA (h) Lentiviral Particles: sc-96824-V.

Molecular Weight of BTG4: 26 kDa.

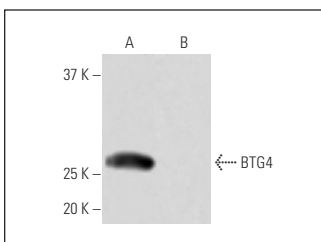
Positive Controls: human BTG4 transfected 293T whole cell lysate.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



BTG4 (NB-B3): sc-134287. Western blot analysis of BTG4 expression in human BTG4 transfected (A) and non-transfected (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Fonseca-Camarillo, G., et al. 2021. Expression of TOB/BTG family members in patients with inflammatory bowel disease. *Scand. J. Immunol.* 93: e13004.

RESEARCH USE

For research use only, not for use in diagnostic procedures.