

BTG1 (2095C1a): sc-81207

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, anti-proliferative 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.

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. Prevot, D., et al. 2001. Relationships of the antiproliferative proteins BTG1 and BTG2 with CAF1, the human homolog of a component of the yeast CCR4 transcriptional complex: involvement in estrogen receptor α signaling pathway. *J. Biol. Chem.* 276: 9640-9648.
4. Tirone, F. 2001. The gene PC3(TIS21/BTG2), prototype member of the PC3/BTG/TOB family: regulator in control of cell growth, differentiation, and DNA repair? *J. Cell. Physiol.* 187: 155-165.

CHROMOSOMAL LOCATION

Genetic locus: BTG1 (human) mapping to 12q21.33.

SOURCE

BTG1 (2095C1a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to the C-terminal region of BTG1 of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

RESEARCH USE

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

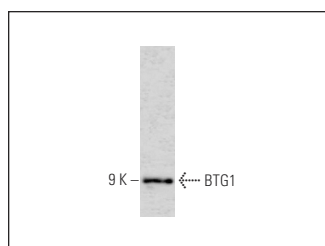
APPLICATIONS

BTG1 (2095C1a) is recommended for detection of BTG1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for BTG1 siRNA (h): sc-43644, BTG1 shRNA Plasmid (h): sc-43644-SH and BTG1 shRNA (h) Lentiviral Particles: sc-43644-V.

Molecular Weight of BTG1: 19 kDa.

DATA



BTG1 (2095C1a): sc-81207. Western blot analysis of Guinea pig recombinant IL-8.

SELECT PRODUCT CITATIONS

1. Zhou, A.D., et al. 2012. β -catenin/LEF1 transactivates the microRNA-371-373 cluster that modulates the Wnt/ β -catenin-signaling pathway. *Oncogene* 31: 2968-2978.
2. Fonseca-Camarillo, G., et al. 2021. Expression of TOB/BTG family members in patients with inflammatory bowel disease. *Scand. J. Immunol.* 93: e13004

PROTOCOLS

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