



BTG2 (h): 293T Lysate: sc-370262

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. 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

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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 ER 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.* 2: 155-165.
5. Melamed, J., et al. 2002. Expression of BTG2 protein in normal human tissues. *Tissue Cell* 1: 28-32.
6. Duriez, C., et al. 2002. The human BTG2/TIS21/PC3 gene: genomic structure, transcriptional regulation and evaluation as a candidate tumor suppressor gene. *Gene* 282: 207-214.
7. Morel, A.P., et al. 2003. BTG2 antiproliferative protein interacts with the human CCR4 complex existing *in vivo* in three cell-cycle-regulated forms. *J. Cell Sci.* 116: 2929-2936.
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STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: BTG2 (human) mapping to 1q32.1.

PRODUCT

BTG2 (h): 293T Lysate represents a lysate of human BTG2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

BTG2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive BTG2 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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