

BTG2 (E-4): sc-518098

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

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.* 2:155-165.

CHROMOSOMAL LOCATION

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

SOURCE

BTG2 (E-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 40-64 within an internal region of BTG2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BTG2 (E-4) is available conjugated to agarose (sc-518098 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518098 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518098 PE), fluorescein (sc-518098 FITC), Alexa Fluor[®] 488 (sc-518098 AF488), Alexa Fluor[®] 546 (sc-518098 AF546), Alexa Fluor[®] 594 (sc-518098 AF594) or Alexa Fluor[®] 647 (sc-518098 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-518098 AF680) or Alexa Fluor[®] 790 (sc-518098 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

BTG2 (E-4) is recommended for detection of BTG2 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 shRNA Plasmid (h): sc-43645-SH and BTG2 shRNA (h) Lentiviral Particles: sc-43645-V.

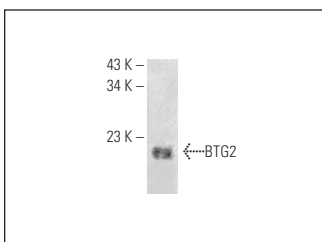
Molecular Weight (predicted) of BTG2: 17 kDa.

Molecular Weight (observed) of BTG2: 20 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



BTG2 (E-4): sc-518098. Western blot analysis of human recombinant BTG2. Detection reagent used: m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM.

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.

PROTOCOLS

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

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