

BBX (G-2): sc-377041

BACKGROUND

BBX (HMG box transcription factor BBX, Bobby sox homolog, HMG box-containing protein 2) is a 941 amino acid protein encoded by the human gene BBX. BBX is a nuclear protein that contains one high mobility group (HMG) domain that belongs to the Sox (Sry-related HMG box) family of transcription factors. HMG proteins are thought to play a significant role in various human disorders. Disruptions and rearrangements in the genes coding for some of the HMG proteins are associated with common benign tumors. Commonly, antibodies against HMG proteins are found in patients suffering from autoimmune diseases. The SRY gene on the Y Chromosome, responsible for male sexual differentiation, contains a HMG-Box domain. Some HMG proteins have demonstrated extracellular activity as a chemokine, attracting neutrophils and mononuclear inflammatory cells to the infected sites. BBX functions as a transcription factor that is necessary for cell cycle progression from G₁ to S phase.

REFERENCES

1. Yu, W., et al. 1997. Large-scale concatenation cDNA sequencing. *Genome Res.* 7: 353-358.
2. Sánchez-Díaz, A., et al. 2001. HBP2: a new mammalian protein that complements the fission yeast MBF transcription complex. *Curr. Genet.* 40: 110-118.
3. Wiemann, S., et al. 2001. Toward a catalog of human genes and proteins: sequencing and analysis of 500 novel complete protein coding human cDNAs. *Genome Res.* 11: 422-435.
4. Strausberg, R.L., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc. Natl. Acad. Sci. USA* 99: 16899-16903.

CHROMOSOMAL LOCATION

Genetic locus: BBX (human) mapping to 3q13.12; Bbx (mouse) mapping to 16 B5.

SOURCE

BBX (G-2) is a mouse monoclonal antibody raised against amino acids 127-210 mapping near the N-terminus of BBX of human origin.

PRODUCT

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

BBX (G-2) is available conjugated to agarose (sc-377041 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377041 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377041 PE), fluorescein (sc-377041 FITC), Alexa Fluor® 488 (sc-377041 AF488), Alexa Fluor® 546 (sc-377041 AF546), Alexa Fluor® 594 (sc-377041 AF594) or Alexa Fluor® 647 (sc-377041 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377041 AF680) or Alexa Fluor® 790 (sc-377041 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

BBX (G-2) is recommended for detection of BBX of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

BBX (G-2) is also recommended for detection of BBX in additional species, including equine and canine.

Suitable for use as control antibody for BBX siRNA (h): sc-78083, BBX siRNA (m): sc-77401, BBX shRNA Plasmid (h): sc-78083-SH, BBX shRNA Plasmid (m): sc-77401-SH, BBX shRNA (h) Lentiviral Particles: sc-78083-V and BBX shRNA (m) Lentiviral Particles: sc-77401-V.

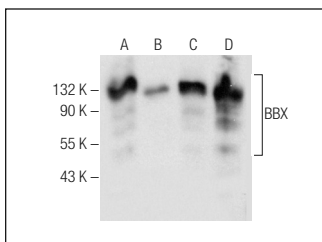
Molecular Weight of BBX: 105 kDa.

Positive Controls: MCF7 nuclear extract: sc-2149, A-673 nuclear extract: sc-2128 or HeLa nuclear extract: sc-2120.

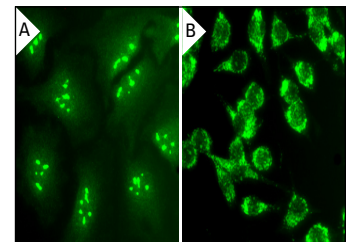
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



BBX (G-2): sc-377041. Western blot analysis of BBX expression in MCF7 (A), A-673 (B), HeLa (C) and NIH/3T3 (D) nuclear extracts.



BBX (G-2): sc-377041. Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar localization (A). Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing nuclear and cytoplasmic localization (B).

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.