

BORIS (H-120): sc-98982



The Power to Question

BACKGROUND

Brother of the regulator of imprinted sites (BORIS) is a mammalian transcription factor that is paralogous to the CCCTC-binding factor (CTCF), an ubiquitous 11 zinc finger (ZF) protein that organizes epigenetically controlled chromatin insulators that regulate imprinted genes in soma. BORIS is a 663 amino acid DNA binding protein. It is expressed at high levels in the testis and in low levels in the prostate in a mutually exclusive pattern that correlates with the resetting of methylation marks during male germ cell differentiation. Abnormal expression of BORIS is linked to many types of cancer including breast, prostate, ovary, gastric, liver, endometrial, glioma, colon and esophagus.

REFERENCES

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2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607022. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Vatolin, S., et al. 2005. Conditional expression of the CTCF-paralogous transcriptional factor BORIS in normal cells results in demethylation and derepression of MAGE-A1 and reactivation of other cancer-testis genes. *Cancer Res.* 65: 7751-7762.
4. Hong, J.A., et al. 2005. Reciprocal binding of CTCF and BORIS to the NY-ESO-1 promoter coincides with derepression of this cancer-testis gene in lung cancer cells. *Cancer Res.* 65: 7763-7774.
5. D'Arcy, V., et al. 2006. The potential of BORIS detected in the leukocytes of breast cancer patients as an early marker of tumorigenesis. *Clin. Cancer Res.* 12: 5978-5986.
6. Hoffmann, M.J., et al. 2006. Epigenetic control of CTCFL/BORIS and Oct-4 expression in urogenital malignancies. *Biochem. Pharmacol.* 72: 1577-1588.
7. Looijenga, L.H., et al. 2006. Genomic and expression profiling of human spermatocytic seminomas: primary spermatocyte as tumorigenic precursor and DMRT1 as candidate chromosome 9 gene. *Cancer Res.* 66: 290-302.

CHROMOSOMAL LOCATION

Genetic locus: CTCFL (human) mapping to 20q13.31.

SOURCE

BORIS (H-120) is a rabbit polyclonal antibody raised against amino acids 91-210 mapping within an internal region of BORIS of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98982 X, 200 µg/0.1 ml.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

BORIS (H-120) is recommended for detection of BORIS 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)], 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 BORIS siRNA (h): sc-60279, BORIS shRNA Plasmid (h): sc-60279-SH and BORIS shRNA (h) Lentiviral Particles: sc-60279-V.

BORIS (H-120) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of BORIS: 76 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Macaluso, M., et al. 2012. Integrating role of T antigen, Rb2/p130, CTCF and BORIS in mediating non-canonical endoplasmic reticulum-dependent death pathways triggered by chronic ER stress in mouse medulloblastoma. *Cell Cycle* 11: 1841-1850.

RESEARCH USE

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

PROTOCOLS

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



Try **BORIS (F-1): sc-377085** or **BORIS (54.47): sc-135730**, our highly recommended monoclonal alternatives to BORIS (H-120).