

BORIS (F-1): sc-377085

BACKGROUND

Brother of the regulator of imprinted sites (BORIS) is a mammalian transcription factor that is paralogous to the CCCTC-binding factor (CTCF), a 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 re-setting 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.

CHROMOSOMAL LOCATION

Genetic locus: CTCFL (human) mapping to 20q13.31; Ctcfl (mouse) mapping to 2 H3.

SOURCE

BORIS (F-1) is a mouse monoclonal antibody raised against amino acids 91-210 mapping within an internal region of BORIS 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-377085 X, 200 µg/0.1 ml.

BORIS (F-1) is available conjugated to agarose (sc-377085 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377085 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377085 PE), fluorescein (sc-377085 FITC), Alexa Fluor® 488 (sc-377085 AF488), Alexa Fluor® 546 (sc-377085 AF546), Alexa Fluor® 594 (sc-377085 AF594) or Alexa Fluor® 647 (sc-377085 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377085 AF680) or Alexa Fluor® 790 (sc-377085 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

BORIS (F-1) is recommended for detection of BORIS 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), immunohistochemistry (including paraffin-embedded sections) (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 siRNA (m): sc-141729, BORIS shRNA Plasmid (h): sc-60279-SH, BORIS shRNA Plasmid (m): sc-141729-SH, BORIS shRNA (h) Lentiviral Particles: sc-60279-V and BORIS shRNA (m) Lentiviral Particles: sc-141729-V.

BORIS (F-1) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

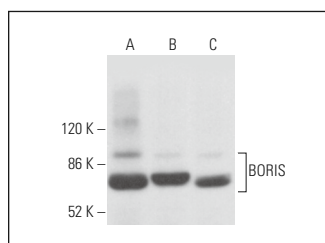
Molecular Weight of BORIS: 76 kDa.

Positive Controls: mouse epididymus tissue extract, rat testis extract: sc-2400 or mouse testis extract: sc-2405.

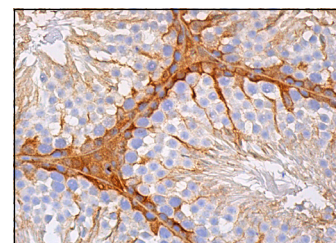
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



BORIS (F-1): sc-377085. Western blot analysis of BORIS expression in mouse epididymus (A), rat testis (B) and mouse testis (C) tissue extracts. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



BORIS (F-1): sc-377085. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse testis tissue showing cytoplasmic staining of cells in seminiferous ducts and Leydig cells.

SELECT PRODUCT CITATIONS

- Zhang, Y., et al. 2017. Brother of regulator of imprinted sites (BORIS) suppresses apoptosis in colorectal cancer. *Sci. Rep.* 7: 40786.
- Zhang, Y., et al. 2022. BTApep-TAT peptide inhibits ADP-ribosylation of BORIS to induce DNA damage in cancer. *Mol. Cancer* 21: 158.

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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