

Borealin (G-25): sc-130705

BACKGROUND

Borealin is a 280-amino acid protein that stabilizes the bipolar mitotic spindle. Borealin is part of a complex called Aurora B kinase that has essential regulatory roles at centromeres and the central spindle in cells undergoing mitosis. This complex makes up the enzymatic core of the chromosomal passenger complex (CPC). It is possible that the Borealin subunit directs the CPC to centromeric DNA. Deletion of Borealin delays mitotic progression and causes kinetochore-spindle to mis-attach. Deletion also causes an increase in bipolar spindles associated with ectopic asters. These extra poles, which form after chromosomes acquire their bipolar orientation, seriously disrupt chromosome allotment during anaphase. It is true that inappropriate chromosomal segregation and cell division may cause aneuploidy leading to cancer, so an abnormal expression of Borealin may lead to gastric cancer.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609977. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Gassmann, R., et al. 2004. Borealin: a novel chromosomal passenger required for stability of the bipolar mitotic spindle. *J. Cell Biol.* 166: 179-191.

CHROMOSOMAL LOCATION

Genetic locus: CDCA8 (human) mapping to 1p34.3.

SOURCE

Borealin (G-25) is a purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Borealin of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

Borealin (G-25) is recommended for detection of Borealin 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), 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 Borealin siRNA (h): sc-60277, Borealin shRNA Plasmid (h): sc-60277-SH and Borealin shRNA (h) Lentiviral Particles: sc-60277-V.

Molecular Weight (predicted) of Borealin: 31 kDa.

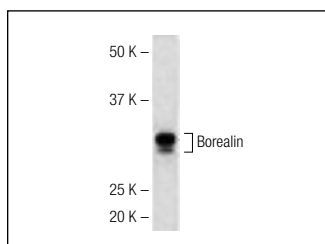
Molecular Weight (observed) of Borealin: 31-36 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

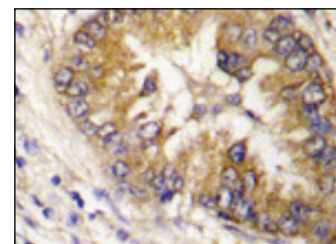
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Borealin (G-25): sc-130705. Western blot analysis of Borealin expression in HL-60 whole cell lysate.



Borealin (G-25): sc-130705. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lung carcinoma tissue showing cytoplasmic localization.

STORAGE

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

PROTOCOLS

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


 MONOS
Satisfaction
Guaranteed

Try **Borealin (A-5): sc-376635**, our highly recommended monoclonal alternative to Borealin (G-25).