

# Borealin (H-41): sc-98869

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: CDCA8 (human) mapping to 1p34.3; Cdc8 (mouse) mapping to 4 D2.2.

## SOURCE

Borealin (H-41) is a rabbit polyclonal antibody raised against amino acids 46-86 mapping near the N-terminus of Borealin 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.

## STORAGE

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

## APPLICATIONS

Borealin (H-41) is recommended for detection of Borealin of mouse, rat and 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).

Borealin (H-41) is also recommended for detection of Borealin in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Borealin siRNA (h): sc-60277, Borealin siRNA (m): sc-60278, Borealin shRNA Plasmid (h): sc-60277-SH, Borealin shRNA Plasmid (m): sc-60278-SH, Borealin shRNA (h) Lentiviral Particles: sc-60277-V and Borealin shRNA (m) Lentiviral Particles: sc-60278-V.

Molecular Weight (predicted) of Borealin: 31 kDa.

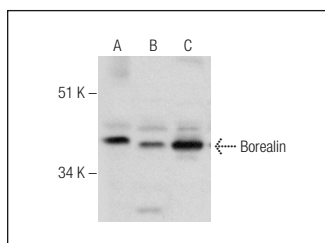
Molecular Weight (observed) of Borealin: 31-36 kDa.

Positive Controls: KNRK nuclear extract: sc-2141, MDA-MB-468 nuclear extract or 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.

## DATA



Borealin (H-41): sc-98869. Western blot analysis of Borealin expression in HL-60 (A), MDA-MB-468 (B) and KNRK (C) nuclear extracts.

## SELECT PRODUCT CITATIONS

1. Gómez, V., et al. 2010. Regulation of aurora B kinase by the lipid raft protein flotillin-1. *J. Biol. Chem.* 285: 20683-20690.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Borealin (A-5): sc-376635**, our highly recommended monoclonal alternative to Borealin (H-41).