

BUBR1 (C-20): sc-16195

BACKGROUND

Human cells contain two related protein kinases, BUB1 and BUBR1, that appear to have evolved from a single ancestral BUB1 gene. Both kinases are concentrated near the surface of the kinetochore where they monitor kinetochore-microtubule interactions. BUB1 and BUBR1 bind to kinetochores and are postulated to be components of the mitotic checkpoint, which monitors kinetochore activities to determine if chromosomes have achieved alignment at the spindle equator. BUBR1 is essential for normal mitotic progression as it prevents cells from prematurely entering anaphase. BUB3 is a conserved component of the mitotic spindle assembly complex and is also involved with the essential spindle checkpoint pathway that operates during early embryogenesis.

CHROMOSOMAL LOCATION

Genetic locus: BUB1B (human) mapping to 15q15.1; Bub1b (mouse) mapping to 2 E5.

SOURCE

BUBR1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of BUBR1 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.

Blocking peptide available for competition studies, sc-16195 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

BUBR1 (C-20) is recommended for detection of BUBR1 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).

BUBR1 (C-20) is also recommended for detection of BUBR1 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for BUBR1 siRNA (h): sc-37542, BUBR1 siRNA (m): sc-37543, BUBR1 shRNA Plasmid (h): sc-37542-SH, BUBR1 shRNA Plasmid (m): sc-37543-SH, BUBR1 shRNA (h) Lentiviral Particles: sc-37542-V and BUBR1 shRNA (m) Lentiviral Particles: sc-37543-V.

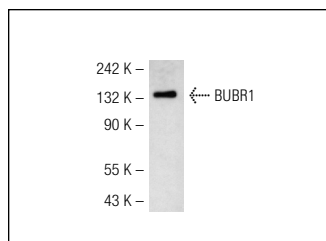
Molecular Weight of BUBR1: 120 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or Jurkat whole cell lysate: sc-2204.

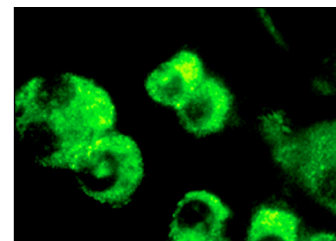
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



BUBR1 (C-20): sc-16195. Western blot analysis of BUBR1 expression in NIH/3T3 whole cell lysate.



BUBR1 (C-20): sc-16195. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Oikawa, T., et al. 2005. Transcriptional control of BUBR1 by p53 and suppression of centrosome amplification by BUBR1. *Mol. Cell. Biol.* 25: 4046-4061.
- Miserey-Lenkei, S., et al. 2006. A role for the Rab6A' GTPase in the inactivation of the Mad2-spindle checkpoint. *EMBO J.* 25: 278-289.
- Tomasini, R., et al. 2009. TAp73 regulates the spindle assembly checkpoint by modulating BUBR1 activity. *Proc. Natl. Acad. Sci. USA* 106: 797-802.
- Zhu, H.J., et al. 2012. Impaired N-cadherin-mediated adhesion increases the risk of inducible ventricular arrhythmias in isolated rat hearts. *Sci. Res. Essays* 7: 2983-2991.

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 **BUBR1 (8G1): sc-47744**, our highly recommended monoclonal alternative to BUBR1 (C-20).