SANTA CRUZ BIOTECHNOLOGY, INC.

BUB3 (H-100): sc-28258

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

BUB3 (budding uninhibited by benzimidazoles 3 homolog), also known as BUB3L or hBUB3, is a conserved component of the mitotic spindle assembly complex (MCC). It contains five WD repeat domains and forms cell cycle constitutive complexes with BUB1 and BUBR1. BUB3 is essential for the kinetochore localization of BUB1 and BUBR1. As a component of the MCC, BUB3 is involved in the essential spindle checkpoint pathway that operates during early embryogenesis. The spindle checkpoint pathway functions to postpone the initiation of anaphase until chromosomes are properly attached to the spindle. This acts to ensure accurate chromosome segregation. In addition, BUB3 plays a role in regulating the establishment of correct kinetochore-microtubule attachments. BUB3 is also thought to bind Tctex1L (or DYNLT3), a dynein light chain.

CHROMOSOMAL LOCATION

Genetic locus: BUB3 (human) mapping to 10q26.13; Bub3 (mouse) mapping to 7 F3.

SOURCE

BUB3 (H-100) is a rabbit polyclonal antibody raised against amino acids 229-328 mapping at the C-terminus of BUB3 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

BUB3 (H-100) is recommended for detection of BUB3 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), 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).

BUB3 (H-100) is also recommended for detection of BUB3 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for BUB3 siRNA (h): sc-37540, BUB3 siRNA (m): sc-37541, BUB3 shRNA Plasmid (h): sc-37540-SH, BUB3 shRNA Plasmid (m): sc-37541-SH, BUB3 shRNA (h) Lentiviral Particles: sc-37540-V and BUB3 shRNA (m) Lentiviral Particles: sc-37541-V.

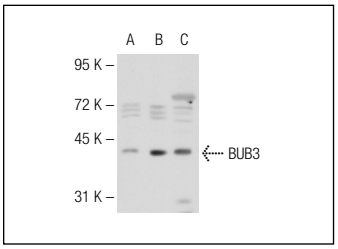
Molecular Weight of BUB3: 40 kDa.

Positive Controls: BUB3 (m): 293T Lysate: sc-126518, Jurkat nuclear extract: sc-2132 or mouse embyro tissue extract.

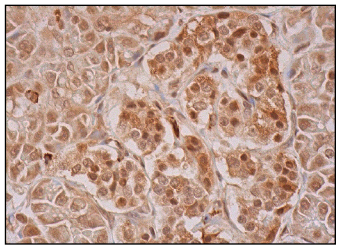
RECOMMENDED SECONDARY REAGENTS

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



BUB3 (H-100): sc-28258. Western blot analysis of BUB3 expression in non-transfected: sc-117752 (**A**) and mouse BUB3 transfected: sc-126518 (**B**) 293T whole cell lysates and mouse embryo tissue extract (**C**).



BUB3 (H-100): sc-28258. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing nuclear and cytoplasmic staining of exocrine glandular cells and Islets of Langerhans.

SELECT PRODUCT CITATIONS

1. Yang, S.W., et al. 2012. Nek9 regulates spindle organization and cell cycle progression during mouse oocyte meiosis and its location in early embryo mitosis. Cell Cycle 11: 4366-4377.
2. Qi, S.T., et al. 2013. Overexpression of SETβ, a protein localizing to centromeres, causes precocious separation of chromatids during the first meiosis of mouse oocytes. J. Cell Sci. 126: 1595-603.

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.