

# Bub1b Antibody

✓ 100 µl  
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID # 701  
Swiss-Prot Acc. # O60566

Applications W, IP Endogenous	Species Cross-Reactivity* H	Molecular Wt. 130 kDa	Source Rabbit**
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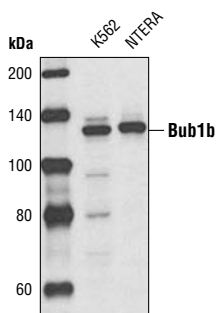
**Background:** The Mitotic Checkpoint Complex (MCC), which contains Bub1, Bub1b, Bub3, Mad2 and Cdc20, controls chromosome segregation and monitors kinetochore-microtubule interactions. (1). This complex inhibits the ubiquitin ligase activity of the Anaphase Promoting Complex/Cyclosome (APC/C) during mitosis to prevent cells with unaligned chromosomes from prematurely entering anaphase (2). Bub1b and Bub1 kinases are mutated in several types of human malignancies including hematopoietic, colorectal, lung and breast cancers (3). Biallelic mutations in Bub1b have been found in mosaic variegated aneuploidy syndrome and premature chromatid separation syndrome (4). Bub1b mouse germline knockouts are embryonic lethal with heterozygous animals displaying genetic instability, early aging phenotypes and increased cancer susceptibility (5). Bub3 binds both Bub1 and Bub1b, facilitating their recruitment to kinetochores (6) and is required for functional microtubule-kinetochore interactions (7).

**Specificity/Sensitivity:** Bub1b Antibody detects endogenous levels of total Bub1b protein.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acid sequence surrounding Lys370 of human Bub1b. Antibodies are purified by Protein A and peptide affinity chromatography.

**Background References:**

- (1) Fukagawa, T. (2008) *Front Biosci* 13, 2705-13.
- (2) Chen, R.H. (2007) *J Biomed Sci* 14, 475-9.
- (3) Dai, W. et al. (2004) *Cancer Res* 64, 440-5.
- (4) Kops, G.J. et al. (2005) *Nat Rev Cancer* 5, 773-85.
- (5) Baker, D.J. et al. (2004) *Nat Genet* 36, 744-9.
- (6) Taylor, S.S. et al. (1998) *J Cell Biol* 142, 1-11.
- (7) Logarinho, E. et al. (2008) *Mol Biol Cell* 19, 1798-813.



Western blot analysis of extracts from K562 and NTERA cells using Bub1b Antibody.

**Storage:** Supplied in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western blotting	1:1000
Immunoprecipitation	1:100

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.