

**KD-Validated Anti-BUB1 Rabbit Monoclonal Antibody**  
**Rabbit monoclonal antibody**  
**Catalog # AGI1354****Specification****KD-Validated Anti-BUB1 Rabbit Monoclonal Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">O43683</a>
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 122 kDa; observed, 130 kDa
Gene Name	KDa
Aliases	BUB1 BUB1; BUB1 Mitotic Checkpoint Serine/Threonine Kinase; HBUB1; BUB1A; BUB1L; Mitotic Checkpoint Serine/Threonine-Protein Kinase BUB1; Budding Uninhibited By Benzimidazoles 1 (Yeast Homolog); Budding Uninhibited By Benzimidazoles 1 Homolog (Yeast); BUB1 Budding Uninhibited By Benzimidazoles 1 Homolog; Budding Uninhibited By Benzimidazoles 1 Homolog; Putative Serine/Threonine-Protein Kinase; Mitotic Spindle Checkpoint Kinase; EC 2.7.11.1; MCPH30
Immunogen	A synthesized peptide derived from human Bub1

**KD-Validated Anti-BUB1 Rabbit Monoclonal Antibody - Additional Information**

Gene ID	699
<b>Other Names</b>	
Mitotic checkpoint serine/threonine-protein kinase BUB1, hBUB1, 2.7.11.1, BUB1A, BUB1, BUB1L	

**KD-Validated Anti-BUB1 Rabbit Monoclonal Antibody - Protein Information****Name** BUB1**Synonyms** BUB1L**Function**

Serine/threonine-protein kinase that performs 2 crucial functions during mitosis: it is essential for spindle-assembly checkpoint signaling and for correct chromosome alignment. Has a key role in the assembly of checkpoint proteins at the kinetochore, being required for the subsequent localization of CENPF, BUB1B, CENPE and MAD2L1. Required for the kinetochore localization of PLK1. Required for centromeric enrichment of AUKRB in prometaphase. Plays an important role in

defining SGO1 localization and thereby affects sister chromatid cohesion. Promotes the centromeric localization of TOP2A (PubMed:<a href="http://www.uniprot.org/citations/35044816" target="\_blank">35044816</a>). Acts as a substrate for anaphase-promoting complex or cyclosome (APC/C) in complex with its activator CDH1 (APC/C-Cdh1). Necessary for ensuring proper chromosome segregation and binding to BUB3 is essential for this function. Can regulate chromosome segregation in a kinetochore-independent manner. Can phosphorylate BUB3. The BUB1-BUB3 complex plays a role in the inhibition of APC/C when spindle-assembly checkpoint is activated and inhibits the ubiquitin ligase activity of APC/C by phosphorylating its activator CDC20. This complex can also phosphorylate MAD1L1. Kinase activity is essential for inhibition of APC/CCDC20 and for chromosome alignment but does not play a major role in the spindle-assembly checkpoint activity. Mediates cell death in response to chromosome missegregation and acts to suppress spontaneous tumorigenesis.

### Cellular Location

Nucleus. Chromosome, centromere, kinetochore. Note=Nuclear in interphase cells. Accumulates gradually during G1 and S phase of the cell cycle, peaks at G2/M, and drops dramatically after mitosis. Localizes to the outer kinetochore. Kinetochore localization is required for normal mitotic timing and checkpoint response to spindle damage and occurs very early in prophase. AURKB, KNL1 and INCENP are required for kinetochore localization (By similarity)

### Tissue Location

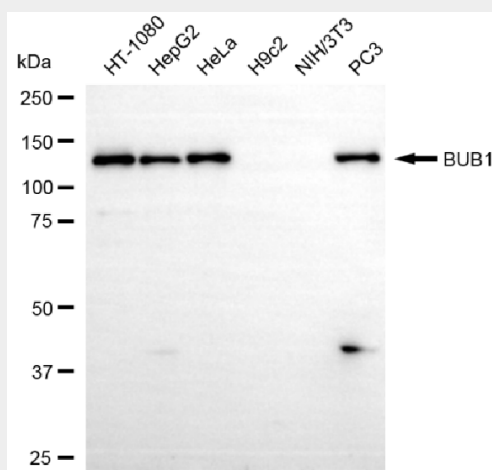
High expression in testis and thymus, less in colon, spleen, lung and small intestine. Expressed in fetal thymus, bone marrow, heart, liver, spleen and thymus. Expression is associated with cells/tissues with a high mitotic index

## KD-Validated Anti-BUB1 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

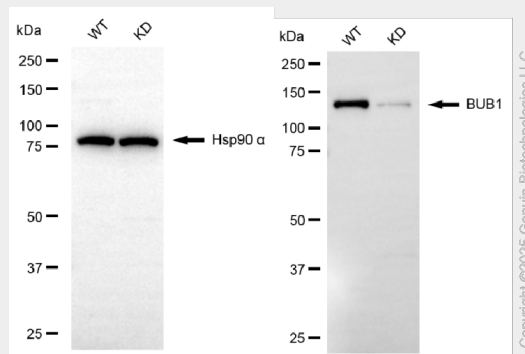
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## KD-Validated Anti-BUB1 Rabbit Monoclonal Antibody - Images



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Western blotting analysis using anti-BUB1 antibody (Cat#AGI1354). Total cell lysates (30  $\mu$ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-BUB1 antibody (Cat#AGI1354, 1:5,000) and HRP-conjugated goat anti rabbit secondary antibody respectively.



Western blotting analysis using anti-BUB1 antibody (Cat#AGI1354). BUB1 expression in wild type (WT) and BUB1 knockdown (KD) HSHC cells with 20  $\mu$ g of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with anti-BUB1 antibody (Cat#AGI1354, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.