

**Anti-Bub3 Antibody**  
**Catalog # ABO10960****Specification**

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**Anti-Bub3 Antibody - Product Information**

Application	WB, IHC-P, IHC-F, ICC
Primary Accession	<a href="#">O43684</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Mitotic checkpoint protein BUB3(BUB3) detection. Tested with WB, IHC-P, IHC-F, ICC in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Bub3 Antibody - Additional Information**

**Gene ID** 9184

**Other Names**

Mitotic checkpoint protein BUB3, BUB3

**Calculated MW**

37155 MW KDa

**Application Details**

Immunocytochemistry , 0.5-1 µg/ml, Human, Mouse, Rat<br>Immunohistochemistry(Frozen Section), 0.5-1 µg/ml, Rat, Human, Mouse<br>Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat<br>

**Subcellular Localization**

Nucleus. Chromosome, centromere, kinetochore . Starts to localize at kinetochores in prometaphase I (Pro-MI) stage and maintains the localization until the metaphase I-anaphase I (MI-AI) transition. .

**Protein Name**

Mitotic checkpoint protein BUB3

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence in the middle region of human Bub3(76-90aa DHQLKMHDNLNTDQEN), identical to the related rat and mouse sequences.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Sequence Similarities**

Belongs to the WD repeat BUB3 family.

**Anti-Bub3 Antibody - Protein Information****Name** BUB3**Function**

Has a dual function in spindle-assembly checkpoint signaling and in promoting the establishment of correct kinetochore-microtubule (K-MT) attachments. Promotes the formation of stable end-on bipolar attachments. Necessary for kinetochore localization of BUB1. Regulates chromosome segregation during oocyte meiosis. The BUB1/BUB3 complex plays a role in the inhibition of anaphase-promoting complex or cyclosome (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.

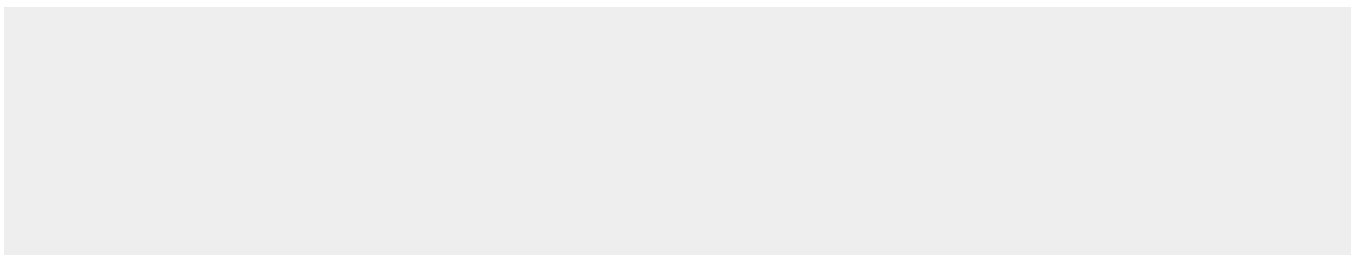
**Cellular Location**

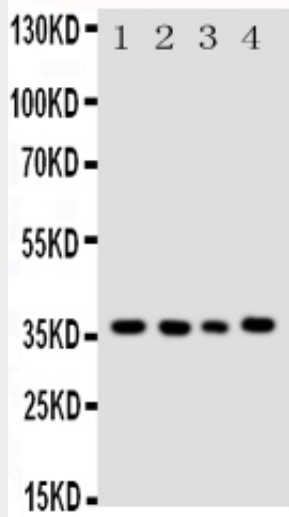
Nucleus. Chromosome, centromere, kinetochore. Note=Starts to localize at kinetochores in prometaphase I (Pro-MI) stage and maintains the localization until the metaphase I- anaphase I (MI-AI) transition.

**Anti-Bub3 Antibody - Protocols**

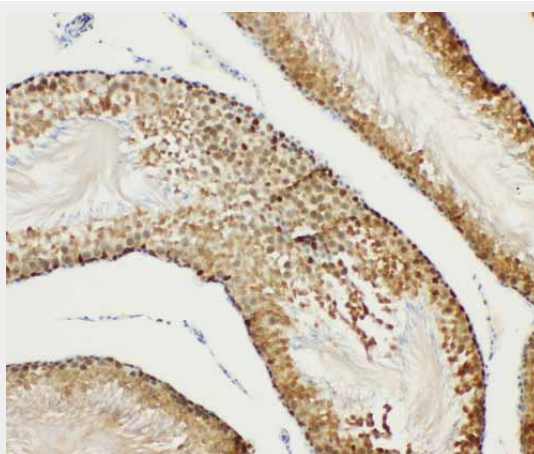
Provided below are standard protocols that you may find useful for product applications.

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

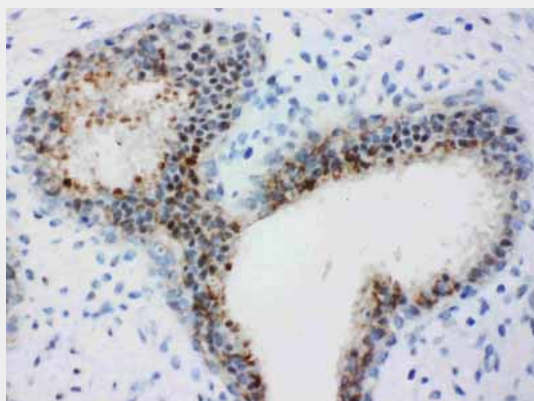
**Anti-Bub3 Antibody - Images**



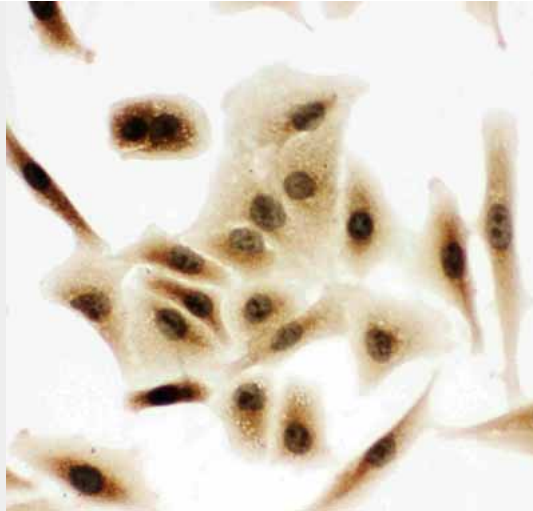
Anti-Bub3 antibody, ABO10960, Western blotting  
All lanes: Anti Bub3 (ABO10960) at 0.5ug/ml  
Lane 1: HELA Whole Cell Lysate at 40ug  
Lane 2: A549 Whole Cell Lysate at 40ug  
Lane 3: JURKAT Whole Cell Lysate at 40ug  
Lane 4: COLO320 Whole Cell Lysate at 40ug  
Predicted bind size: 37KD  
Observed bind size: 37KD



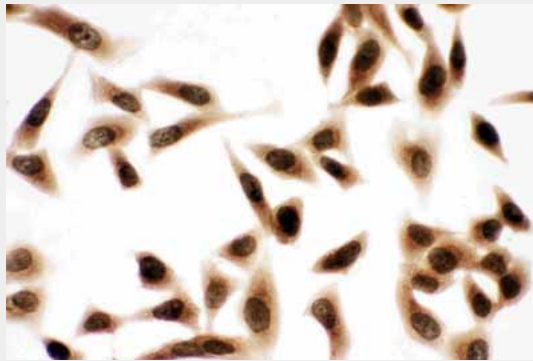
Anti-Bub3 antibody, ABO10960, IHC(P)  
IHC(P): Rat Testis Tissue



Anti-Bub3 antibody, ABO10960, IHC(P)  
IHC(P): Human Mammary Cancer Tissue



Anti-Bub3 antibody, ABO10960, ICCICC: A549 Cell



Anti-Bub3 antibody, ABO10960, ICCICC: HELA Cell

#### **Anti-Bub3 Antibody - Background**

BUB3(BUDDING UNINHIBITED BY BENZIMIDAZOLES 3) is a protein that in humans is encoded by the BUB3 gene. And it is mapped on 10q26.13. Bub3 is also a protein involved with the regulation of the Spindle Assembly Checkpoint(SAC); though BUB3 is non-essential in yeast, it is essential in higher eukaryotes. As one of the checkpoint proteins, Bub3 delays the irreversible onset of anaphase through direction of kinetochore localization during prometaphase to achieve bioorientation. Bub3 directs the localization of Bub1 at the kinetochore in order to activate the SAC. Bub3 also acts as a regulator in that it affects binding of Mad3 to Mad2. Using deletion analysis, the authors identified a domain of BUB1 that is required both for binding BUB3 and for kinetochore localization of BUB1.