

## **BUB1 Polyclonal Antibody**

Catalog No: YT0546

**Reactivity:** Human; Mouse

**Applications:** WB;ELISA

Target: BUB1

**Fields:** >>Cell cycle;>>Oocyte meiosis;>>Progesterone-mediated oocyte maturation

Gene Name: BUB1

Protein Name: Mitotic checkpoint serine/threonine-protein kinase BUB1

Human Gene ld: 699

**Human Swiss Prot** 

No:

**Mouse Swiss Prot** 

No:

**Immunogen:** The antiserum was produced against synthesized peptide derived from human

BUB1. AA range:781-830

O43683

O08901

**Specificity:** BUB1 Polyclonal Antibody detects endogenous levels of BUB1 protein.

**Formulation :** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

**Dilution:** WB 1:500 - 1:2000. ELISA: 1:40000. Not yet tested in other applications.

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

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Observed Band: 120kD

**Cell Pathway:** Cell\_Cycle\_G1S;Cell\_Cycle\_G2M\_DNA;Oocyte meiosis;Progesterone-

mediated oocyte maturation;

**Background:** This gene encodes a serine/threonine-protein kinase that play a central role in

mitosis. The encoded protein functions in part by phosphorylating members of the mitotic checkpoint complex and activating the spindle checkpoint. This protein also plays a role in inhibiting the activation of the anaphase promoting

complex/cyclosome. This protein may also function in the DNA damage response. Mutations in this gene have been associated with aneuploidy and several forms of

cancer. Alternate splicing results in multiple transcript variants. [provided by

RefSeq, Jul 2013],

**Function:** catalytic activity:ATP + a protein = ADP + a phosphoprotein.,disease:Defects in

BUB1 are associated with tumor formation.,domain:CD1 domain directs

kinetochore localization and binding to BUB3.,enzyme

regulation: Autophosphorylated when the cells enters mitosis., function: Involved in

cell cycle checkpoint enforcement. Can interact and phosphorylate BUB3.,induction:Inhibited by phorbol 12-myristate 13-acetate

(PMA).,PTM:Phosphorylated upon DNA damage, probably by ATM or

ATR., similarity: Belongs to the protein kinase superfamily., similarity: Belongs to the

protein kinase superfamily. Ser/Thr protein kinase family. BUB1

subfamily.,similarity:Contains 1 CD1 domain.,similarity:Contains 1 protein kinase domain.,subcellular location:Nuclear in interphase cells. Kinetochore localization

is required for normal mitotic timing and checkpoint response to spindle

damage.,tissue specificity:High expressio

Subcellular Location:

Nucleus. Chromosome, centromere, kinetochore. 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

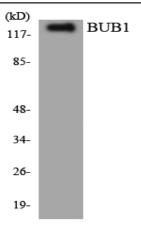
and INCENP are required for kinetochore localization (By similarity). .

**Expression:** 

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.

## **Products Images**



Western blot analysis of the lysates from HUVECcells using BUB1 antibody.