

BUB1 Antibody (aa769-818)
Rabbit Polyclonal Antibody
Catalog # ALS17000**Specification**

BUB1 Antibody (aa769-818) - Product Information

Application	IHC, WB
Primary Accession	O43683
Other Accession	699
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	122375

BUB1 Antibody (aa769-818) - Additional Information**Gene ID** 699**Other Names**

BUB1, Bub1A, BUB1L, HBUB1

Target/Specificity

BUB1 Antibody antibody detects endogenous levels of BUB1.

Reconstitution & Storage

PBS, pH 7.4, 150 mM sodium chloride, 0.02% sodium azide, 50% glycerol. Store at -20°C.

Precautions

BUB1 Antibody (aa769-818) is for research use only and not for use in diagnostic or therapeutic procedures.

BUB1 Antibody (aa769-818) - 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: <http://www.uniprot.org/citations/35044816> target="_blank">35044816). 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

Volume

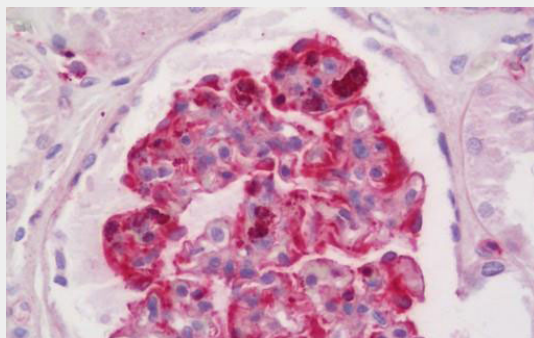
50 µl

BUB1 Antibody (aa769-818) - Protocols

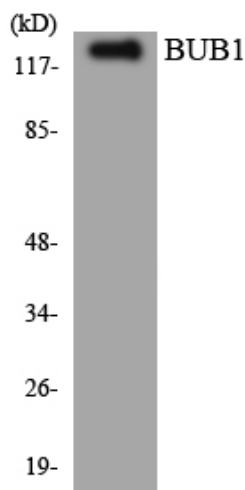
Provided below are standard protocols that you may find useful for product applications.

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

BUB1 Antibody (aa769-818) - Images



Anti-BUB1 antibody IHC staining of human kidney.



Western blot of the lysates from HUVEC cells using BUB1 antibody.

BUB1 Antibody (aa769-818) - Background

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. Plays an important role in defining SGOL1 localization and thereby affects sister chromatid cohesion. 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.

BUB1 Antibody (aa769-818) - References

- Cahill D.P.,et al.Nature 392:300-303(1998).
- Ouyang B.,et al.Cell Growth Differ. 9:877-885(1998).
- Taylor S.S.,et al.J. Cell Biol. 142:1-11(1998).
- Seeley T.W.,et al.Biochem. Biophys. Res. Commun. 257:589-595(1999).
- Cahill D.P.,et al.Genomics 58:181-187(1999).