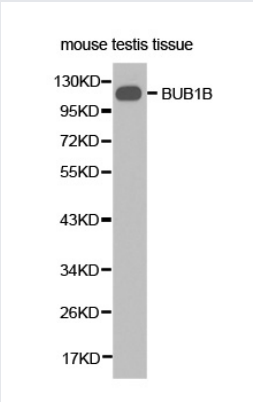
BUB1B Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	BUB1B, Polyclonal Antibody
Full Product Name	BUB1B Antibody
Product Gene Name	anti-BUB1B antibody
Product Synonym Names	BUB1beta; BUBR1; Bub1A; MAD3L; SSK1
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Antibodies were purified by affinity purification using immunogen.
Concentration	1.0 mg/ml (lot specific)
Specificity	The antibody detects endogenous level of total BUB1B protein.
Preparation and Storage	Store at -20 degree C
Molecular Weight	121,386 Da
OMIM	176430
3D Structure	ModBase 3D Structure for O60566
Immunogen Type	Recombinant Protein
Immunogen Description	Recombinant protein of human BUB1B.
Target Name	BUB1B
Product Categories/Family for anti-BUB1B antibody	Total protein Ab
Applications Tested/Suitable for anti-BUB1B antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-BUB1B antibody	Western blotting: 1:500 - 1:2000 Immunohistochemistry: 1:50 - 1:100
Related Product Information for anti-BUB1B antibody	The Mitotic Checkpoint Complex (MCC), which contains Bub1, Bub1b, Bub3, Mad2, and Cdc20, controls chromosome segregation and monitors kinetochore-microtubule interactions (1). During mitosis, the MCC complex inhibits the ubiquitin ligase activity of the Anaphase Promoting Complex/Cyclosome (APC/C), thereby preventing cells with unaligned chromosomes from prematurely entering anaphase (2). Research studies have shown that 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).
Other Notes	Small volumes of anti-BUB1B antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for BUB1B purchase	MBS9413026 is an antibody targeting BUB1B. Also known as BUB1B Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



Western Blot (WB) of anti-BUB1B antibody
Western blot analysis of extracts of mouse testis tissue cell line, using BUB1B antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BUB1B. It may not necessarily be applicable to this product.

NCBI GI #	59814247
NCBI GeneID	701
NCBI Accession #	NP_001202.4
UniProt Primary Accession #	O60566
UniProt Secondary Accession #	O60501; O60627; O60758; O75389; Q59HH6; Q8WV50; Q96KM4; B2R6U0; B4DL09; B4DLG3
UniProt Related Accession #	O60566
GenBank Nucleotide #	NM_001211.5
NCBI Official Full Name	mitotic checkpoint serine/threonine-protein kinase BUB1 beta
NCBI Official Synonym Full Names	BUB1 mitotic checkpoint serine/threonine kinase B
NCBI Official Symbol	BUB1B
NCBI Official Synonym Symbols	MVA1; SSK1; BUBR1; Bub1A; MAD3L; hBUBR1; BUB1beta
UniProt Protein Name	Mitotic checkpoint serine/threonine-protein kinase BUB1 beta
UniProt Synonym Protein Names	MAD3/BUB1-related protein kinase; hBUBR1; Mitotic checkpoint kinase MAD3L; Protein SSK1
Protein Family	Mitotic checkpoint serine/threonine-protein kinase
UniProt Gene Name	BUB1B
UniProt Synonym Gene Names	BUBR1; MAD3L; SSK1; hBUBR1
UniProt Entry Name	BUB1B_HUMAN
NCBI Protein Information	mitotic checkpoint serine/threonine-protein kinase BUB1 beta
NCBI Summary for BUB1B	This gene encodes a kinase involved in spindle checkpoint function. The protein has been localized to the kinetochore and plays a role in the inhibition of the anaphase-promoting complex/cyclosome (APC/C), delaying the onset of anaphase and ensuring proper chromosome segregation. Impaired spindle checkpoint function has been found in many forms of cancer. [provided by RefSeq, Jul 2008]

UniProt Comments for BUB1B	BUB1B: Essential component of the mitotic checkpoint. Required for normal mitosis progression. The mitotic checkpoint delays anaphase until all chromosomes are properly attached to the mitotic spindle. One of its checkpoint functions is to inhibit the activity of the anaphase-promoting complex/cyclosome (APC/C) by blocking the binding of CDC20 to APC/C, independently of its kinase activity. The other is to monitor kinetochore activities that depend on the kinetochore motor CENPE. Required for kinetochore localization of CENPE. Negatively regulates PLK1 activity in interphase cells and suppresses centrosome amplification. Also implicated in triggering apoptosis in polyploid cells that exit aberrantly from mitotic arrest. May play a role for tumor suppression. Interacts with CENPE, CENPF, mitosin, PLK1 and BUB3. Part of a complex containing BUB3, CDC20 and BUB1B. Interacts with anaphase-promoting complex/cyclosome (APC/C). Interacts with CASC5. Induced during mitosis. Highly expressed in thymus followed by spleen. Preferentially expressed in tissues with a high mitotic index. Kinase activity stimulated by CENPE. Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. BUB1 subfamily. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Kinase, protein; Protein kinase, Other; Tumor suppressor; Protein kinase, Ser/Thr (non-receptor); EC 2.7.11.1; Other group; BUB family Chromosomal Location of Human Ortholog: 15q15 Cellular Component: kinetochore; anaphase-promoting complex; perinuclear region of cytoplasm; cytoplasm; microtubule organizing center; outer kinetochore of condensed chromosome; spindle midzone; cytosol Molecular Function: protein serine/threonine kinase activity; protein binding; ATP binding; protein kinase activity Biological Process: mitosis; cell proliferation; negative regulation of ubiquitin-protein ligase activity during mitotic cell cycle; regulation of ubiquitin-protein ligase activity during mitotic cell cycle; anaphase-promoting complex-dependent proteasomal ubiquitin-dependent protein catabolic process; cell division; apoptosis; mitotic cell cycle checkpoint; mitotic cell cycle spindle assembly checkpoint; mitotic cell cycle; protein amino acid phosphorylation; mitotic metaphase/anaphase transition Disease: Mosaic Variegated Aneuploidy Syndrome 1; Premature Chromatid Separation Trait
Research Articles on BUB1B	**1.** Co-depletion of MAD2 and BUBR1 causes cell cycle arrest and cell death in addition to aneuploidy.
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