Bub1 Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	BUB1, Blocking Peptide
Full Product Name	Bub1 Blocking Peptide
Product Gene Name	BUB1 blocking peptide
Product Synonym Names	Bub1; BUB1 budding uninhibited by benzimidazoles 1 homolog; BUB1 budding uninhibited by benzimidazoles 1 homolog (yeast); BUB1 mitotic checkpoint serine/threonine kinase; BUB1, S. cerevisiae, homolog of; BUB1_HUMAN; BUB1A; BUB1L; Budding uninhibited by benzimidazoles 1 (yeast homolog); Budding uninhibited by benzimidazoles 1 homolog; Budding uninhibited by benzimidazoles 1, S. cerevisiae, homolog of; hBUB1; Homolog of mitotic checkpoint gene BUB1; Mitotic checkpoint gene BUB1; Mitotic checkpoint serine/threonine protein kinase BUB1; Mitotic checkpoint serine/threonine-protein kinase BUB1; Mitotic spindle checkpoint kinase; Putative serine/threonine protein kinase
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	Bub1 peptide (MBS9624944) is used for blocking the activity of Bub1 antibody (MBS9606227)
Molecular Weight	120,002 Da
OMIM	602452
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for BUB1 blocking peptide	Blocking/Control
Related Product Information for BUB1 blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of BUB1 blocking peptide 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 BUB1 purchase	MBS9624944 is a blocking peptide targeting BUB1.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BUB1. It may not necessarily be applicable to this product.

NCBI GI #	519666801
NCBI GeneID	699
NCBI Accession #	NP_001265546.1

UniProt Primary Accession #	O43683
UniProt Secondary Accession #	O43430; O43643; O60626; Q53QE4; E9PC26; F5GXI5
UniProt Related Accession #	O43683
GenBank Nucleotide #	NM_001278617.1
NCBI Official Full Name	mitotic checkpoint serine/threonine-protein kinase BUB1 isoform 3
NCBI Official Synonym Full Names	BUB1 mitotic checkpoint serine/threonine kinase
NCBI Official Symbol	BUB1
NCBI Official Synonym Symbols	BUB1A; BUB1L; hBUB1
UniProt Protein Name	Mitotic checkpoint serine/threonine-protein kinase BUB1
UniProt Synonym Protein Names	BUB1A
Protein Family	Checkpoint serine/threonine-protein kinase
UniProt Gene Name	BUB1
UniProt Synonym Gene Names	BUB1L; hBUB1
UniProt Entry Name	BUB1_HUMAN
NCBI Protein Information	mitotic checkpoint serine/threonine-protein kinase BUB1; mitotic spindle checkpoint kinase; putative serine/threonine-protein kinase; budding uninhibited by benzimidazoles 1 homolog; BUB1 budding uninhibited by benzimidazoles 1 homolog
NCBI Summary for BUB1	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]
UniProt Comments for BUB1	BUB1: a mitotic-checkpoint protein kinase of the BUB family. Autophosphorylated when the cells enters mitosis. Kinetochore localization is required for normal mitotic timing and checkpoint response to spindle damage. 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. LOF mutations seen in two colon cancer cell lines exhibiting chromosomal instability, in several leukemias and lymphomas, and in a pancreatic cancer cell line. BUB1 functions in mitotic spindle assembly, and may cause chromosomal instability. In mouse BRCA2 knockouts, mutations in BUB1 and BUBR1 are frequently seen in the resulting tumors. BUB1 and BUBR1 are overexpressed, but not mutated, in many gastric cancers. Protein type: Kinase, protein; EC 2.7.11.1; Protein kinase, Ser/Thr (non-receptor); Protein kinase, Other; Cell cycle regulation; Other group; BUB family Chromosomal Location of Human Ortholog: 2q14 Cellular Component: nucleoplasm; kinetochore; membrane; cytoplasm; cytosol; condensed nuclear chromosome, pericentric region Molecular Function: protein serine/threonine kinase activity; protein binding; ATP binding; protein kinase activity Biological Process: cell proliferation; mitosis; viral reproduction; apoptosis; cell division; mitotic cell cycle checkpoint; mitotic cell cycle spindle assembly checkpoint; regulation of chromosome segregation; regulation of sister chromatid cohesion; mitotic cell cycle; protein amino acid phosphorylation; chromosome segregation
Research Articles on BUB1	**1.** The bioinformatics analysis suggested that this variant may regulate the transcriptional ability of BUB1

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