10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-BUB1B Antibody [KO/KD Validated]

Catalog # AP60871

Product Information

Application	WB, IF/IC
Primary Accession	O60566
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	119545

Additional Information

Gene ID	701
Other Names	BUBR1; MAD3L; SSK1; Mitotic checkpoint serine/threonine-protein kinase BUB1 beta; MAD3/BUB1-related protein kinase; hBUBR1; Mitotic checkpoint kinase MAD3L; Protein SSK1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human BUB1B. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	BUB1B (HGNC:1149)
Function	Kinase which is a component of the mitotic checkpoint complex (MCC), which inhibits APC/C and delays chromosome segregation until all chromosomes are properly attached to the mitotic spindle (PubMed:27509861, PubMed:31201382). The MCC, which consists of CDC20, MAD2L1/MAD2, BUB1B/BUBR1 and BUB3, is a key player of the spindle assembly checkpoint (PubMed:11702782, PubMed:14706340, PubMed:15020684, PubMed:27509861, PubMed:31201382). The MCC-bound APC/C complex is inactive and this delays the metaphase/anaphase transition (PubMed:10477750, PubMed:27509861). When the spindle assembly checkpoint is silenced, the MCC-APC/C complex recruits the E2 enzyme UBCH10 and triggers the auto-ubiquitination of CDC20 in the MCC, thereby reactivating APC/C for transition into anaphase (PubMed:27509861). MCC also monitors kinetochore activities that depend on the kinetochore motor CENPE (PubMed:15020684). Required for kinetochore localization of CENPE

(PubMed:15020684). Negatively regulates PLK1 activity in interphase cells and suppresses centrosome amplification (PubMed:19503101). May play a role for tumor suppression (By similarity).

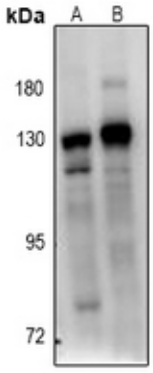
Cellular Location

Cytoplasm. Nucleus. Chromosome, centromere, kinetochore. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome Note=Cytoplasmic in interphase cells. Associates with the kinetochores in early prophase. Kinetochore localization requires BUB1, PLK1 and KNL1.

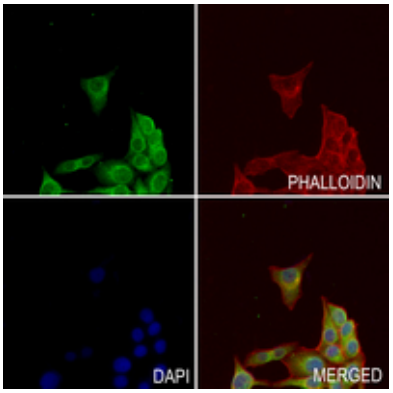
Tissue Location

Highly expressed in thymus followed by spleen. Preferentially expressed in tissues with a high mitotic index

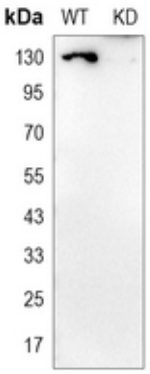
Images



Western blot analysis of BUB1B expression in Hela (A), A549 (B) whole cell lysates. (Predicted band size: 119 kD; Observed band size: 130 kD)



Immunofluorescent analysis of BUB1B staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Western blot analysis of BUB1B expression in wild type (WT) and knockdown (KD) HeLa cell lysates.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.