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

BubR1 Polyclonal Antibody

Catalog # AP68732

Product Information

Application	WB, E
Primary Accession	O60566
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	119545

Additional Information

Gene ID	701
Other Names	BUB1B; BUBR1; MAD3L; SSK1; Mitotic checkpoint serine/threonine-protein kinase BUB1 beta; MAD3/BUB1-related protein kinase; hBUBR1; Mitotic checkpoint kinase MAD3L; Protein SSK1
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications. E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

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).

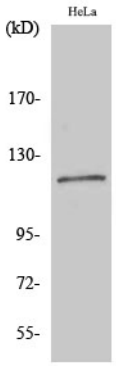
Cellular Location Cytoplasm. Nucleus. Chromosome, centromere, kinetochore. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome Note=Cytoplasmic in interphase cells. Associates with the kinetochores in early prophase. Kinetochore localization requires BUB1, PLK1 and KNL1.

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

Background

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.

Images



Western Blot analysis of various cells using BubR1 Polyclonal Antibody

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