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Anti-Mad2L1 Picoband Antibody

Catalog # ABO11973

Product Information

Application	WB
Primary Accession	Q13257
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Mitotic spindle assembly checkpoint protein MAD2A(MAD2L1) detection. Tested with WB in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	4085
Other Names	Mitotic spindle assembly checkpoint protein MAD2A, HsMAD2, Mitotic arrest deficient 2-like protein 1, MAD2-like protein 1, MAD2L1, MAD2
Calculated MW	23510
Application Details	Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Nucleus. Chromosome, centromere, kinetochore. Cytoplasm. Cytoplasm, cytoskeleton, spindle pole. Recruited by MAD1L1 to unattached kinetochores (Probable). Recruited to the nuclear pore complex by TPR during interphase. Recruited to kinetochores in late prometaphase after BUB1, CENPF, BUB1B and CENPE. Kinetochore association requires the presence of NEK2. Kinetochore association is repressed by UBD. .
Source	Eukaryota
Protein Name	Mitotic spindle assembly checkpoint protein MAD2A
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human Mad2L1 recombinant protein (Position: A2-D205). Human Mad2L1 shares 94% amino acid (aa) sequence identity with mouse Mad2L1.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the MAD2 family.

Protein Information

Name	MAD2L1
Synonyms	MAD2
Function	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:10700282, PubMed:11804586, PubMed:15024386, PubMed:29162720, PubMed:27509861). The MCC, which consists of CDC20, MAD2L1/MAD2, BUB1B/BUBR1 and BUB3, is a key player of the spindle assembly checkpoint (PubMed:15020684, PubMed:27509861). The MCC-bound APC/C complex is inactive and this delays the metaphase/anaphase transition (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). In the closed conformation (C-MAD2) forms a heterotetrameric complex with MAD1L1 at unattached kinetochores during prometaphase, the complex recruits open conformation molecules of MAD2L1 (O-MAD2) and then promotes the conversion of O-MAD2 to C-MAD2 (PubMed:29162720).
Cellular Location	Nucleus. Chromosome, centromere, kinetochore. Cytoplasm. Cytoplasm, cytoskeleton, spindle pole Note=Recruited by MAD1L1 to unattached kinetochores (Probable) Recruited to the nuclear pore complex by TPR during interphase Recruited to kinetochores in late prometaphase after BUB1, CENPF, BUB1B and CENPE. Kinetochore association requires the presence of NEK2 Kinetochore association is repressed by UBD. Sequestered to the cytoplasm upon interaction with isoform 3 of MAD1L1 (PubMed:19010891) {ECO:0000269|PubMed:19010891, ECO:0000305}

Background

Mitotic spindle assembly checkpoint protein MAD2A is a protein that in humans is encoded by the MAD2L1 gene. This gene belongs to the MAD2 family. It is mapped to 4q27. MAD2L1 is a component of the mitotic spindle assembly checkpoint that prevents the onset of anaphase until all chromosomes are properly aligned at the metaphase plate. The protein has two highly different native conformations, an inactive open conformation that cannot bind CDC20 and that predominates in cytosolic monomers, and an active closed conformation. It is required for the execution of the mitotic checkpoint which monitors the process of kinetochore-spindle attachment.

Images

Anti- Mad2L1 Picoband antibody, ABO11973, Western blottingAll lanes: Anti Mad2L1 (ABO11973) at 0.5ug/mlLane 1: 293T Whole Cell Lysate at 40ugLane 2: COLO320 Whole Cell Lysate at 40ugPredicted bind size: 23KDObserved bind size: 23KD



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