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

MAD1L1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12347a

Product Information

Application	WB, E
Primary Accession	Q9Y6D9
Other Accession	NP_001013859.1, NP_001013858.1, NP_003541.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB20598
Calculated MW	83067
Antigen Region	124-151

Additional Information

Gene ID	8379
Other Names	Mitotic spindle assembly checkpoint protein MAD1, Mitotic arrest deficient 1-like protein 1, MAD1-like protein 1, Mitotic checkpoint MAD1 protein homolog, HsMAD1, hMAD1, Tax-binding protein 181, MAD1L1, MAD1, TXBP181
Target/Specificity	This MAD1L1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 124-151 amino acids from the N-terminal region of human MAD1L1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MAD1L1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MAD1L1
Synonyms	MAD1, TXBP181

Function	Component of the spindle-assembly checkpoint that prevents the onset of anaphase until all chromosomes are properly aligned at the metaphase plate (PubMed:10049595, PubMed:20133940, PubMed:29162720). Forms a heterotetrameric complex with the closed conformation form of MAD2L1 (C-MAD2) at unattached kinetochores during prometaphase, recruits an open conformation of MAD2L1 (O-MAD2) and promotes the conversion of O-MAD2 to C-MAD2, which ensures mitotic checkpoint signaling (PubMed:29162720).
Cellular Location	Nucleus. Chromosome, centromere, kinetochore. Nucleus envelope Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle. Cytoplasm, cytoskeleton, spindle pole. Note=Co- localizes with TPR at the nucleus envelope during interphase and throughout the cell cycle (PubMed:18981471, PubMed:22351768). From the beginning to the end of mitosis, it is seen to move from a diffusely nuclear distribution to the centrosome, to the spindle midzone and finally to the midbody (PubMed:9546394). Localizes to kinetochores during prometaphase (PubMed:22351768, PubMed:29162720). Does not localize to kinetochores during metaphase (PubMed:29162720) Colocalizes with NEK2 at the kinetochore (PubMed:14978040). Colocalizes with IK at spindle poles during metaphase and anaphase (PubMed:22351768).
Tissue Location	[Isoform 1]: Expressed in hepatocellular carcinomas and hepatoma cell lines (at protein level)

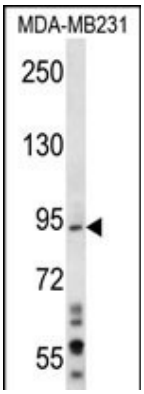
Background

MAD1L1 is a component of the mitotic spindle-assembly checkpoint that prevents the onset of anaphase until all chromosome are properly aligned at the metaphase plate. MAD1L1 functions as a homodimer and interacts with MAD2L1. MAD1L1 may play a role in cell cycle control and tumor suppression. Three transcript variants encoding the same protein have been found for this gene. [provided by RefSeq].

References

Shimada, M., et al. Hum. Genet. 128(4):433-441(2010)
Guo, Y., et al. J. Med. Genet. 47(9):616-622(2010)
Wang, H.B., et al. J. Gastrointest. Surg. 14(8):1227-1234(2010)
Hewitt, L., et al. J. Cell Biol. 190(1):25-34(2010)
Ge, Z., et al. FASEB J. 24(2):579-586(2010)

Images



MAD1L1 Antibody (N-term) (Cat. #AP12347a) western blot analysis in MDA-MB231 cell line lysates (35ug/lane).This demonstrates the MAD1L1 antibody detected the MAD1L1 protein (arrow).

Citations

- Kinetochore protein MAD1 participates in the DNA damage response through ataxia-telangiectasia mutated kinase-mediated phosphorylation and enhanced interaction with KU80