

Catalog # AF1644a

Goat Anti-MAD2L1 Antibody Peptide-affinity purified goat antibody

## Specification

## **Goat Anti-MAD2L1 Antibody - Product Information**

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Concentration Isotype Calculated MW WB <u>O13257</u> <u>NP\_002349</u>, <u>4085</u>, <u>56150 (mouse)</u> Human Mouse, Rat, Pig, Dog Goat Polyclonal 100ug/200ul IgG 23510

## **Goat Anti-MAD2L1 Antibody - 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

Format

0.5 mg lgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** Goat Anti-MAD2L1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

# **Goat Anti-MAD2L1 Antibody - Protein Information**

Name MAD2L1

Synonyms MAD2

Function

Component of the spindle-assembly checkpoint that prevents the onset of anaphase until all chromosomes are properly aligned at the metaphase plate (PubMed:<a href="http://www.uniprot.org/citations/15024386" target="\_blank">15024386</a>, PubMed:<a



href="http://www.uniprot.org/citations/29162720" target="\_blank">29162720</a>). 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:<a href="http://www.uniprot.org/citations/29162720" target="\_blank">29162720</a>). Required for the execution of the mitotic checkpoint which monitors the process of kinetochore-spindle attachment and inhibits the activity of the anaphase promoting complex by sequestering CDC20 until all chromosomes are aligned at the metaphase plate (PubMed:<a href="http://www.uniprot.org/citations/10700282" target="\_blank">10700282</a>, PubMed:<a href="http://www.uniprot.org/citations/11804586" target="\_blank">11804586</a>, PubMed:<a href="http://www.uniprot.org/citations/15024386" target="\_blank">11804586</a>).

**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}

## Goat Anti-MAD2L1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Goat Anti-MAD2L1 Antibody - Images



AF1644a (2  $\mu$ g/ml) staining of HEK293 lysate (35  $\mu$ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



# Goat Anti-MAD2L1 Antibody - Background

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. MAD2L1 is related to the MAD2L2 gene located on chromosome 1. A MAD2 pseudogene has been mapped to chromosome 14.

## Goat Anti-MAD2L1 Antibody - References

Sustained Mps1 activity is required in mitosis to recruit O-Mad2 to the Mad1-C-Mad2 core complex. Hewitt L, et al. J Cell Biol, 2010 Jul 12. PMID 20624899.

Functional evaluation of missense variations in the human MAD1L1 and MAD2L1 genes and their impact on susceptibility to lung cancer. Guo Y, et al. J Med Genet, 2010 Sep. PMID 20516147. Spindle proteins in resected pancreatic head adenocarcinomas: BubR1 is an independent prognostic factor in pancreatobiliary-type tumours. Gladhaug IP, et al. Histopathology, 2010 Feb. PMID 20459534.

Depression of MAD2 inhibits apoptosis and increases proliferation and multidrug resistance in gastric cancer cells by regulating the activation of phosphorylated survivin. Wang L, et al. Tumour Biol, 2010 Jun. PMID 20440596.

A systematic gene-based screen of chr4q22-q32 identifies association of a novel susceptibility gene, DKK2, with the quantitative trait of alcohol dependence symptom counts. Kalsi G, et al. Hum Mol Genet, 2010 Jun 15. PMID 20332099.