

## MIB1 Antibody

Catalog # ASC11794

## Specification

## MIB1 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Calculated MW

**Application Notes** 

WB, IF, ICC, E <u>O86YT6</u> <u>NP\_065825</u>, <u>30348954</u> Human, Mouse, Rat Rabbit Polyclonal IgG Predicted: 89, 102, 111 kDa

Observed: 103 kDa KDa MIB1 antibody can be used for detection of MIB1 by Western blot at 1 - 2 µg/ml. Antibody can also be used for Immunocytochemistry at 5 µg/mL. For Immunoflorescence start at 20 µg/mL.

# MIB1 Antibody - Additional Information

Gene ID Target/Specificity MIB1: MIB1 antibody is

57534

MIB1; MIB1 antibody is human, mouse and rat reactive. At least three isoforms of MIB1 are known to exist.

**Reconstitution & Storage** MIB1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

**Precautions** MIB1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## MIB1 Antibody - Protein Information

Name MIB1

Synonyms DIP1, KIAA1323, ZZANK2

Function

E3 ubiquitin-protein ligase that mediates ubiquitination of Delta receptors, which act as ligands of Notch proteins. Positively regulates the Delta-mediated Notch signaling by ubiquitinating the intracellular domain of Delta, leading to endocytosis of Delta receptors. Probably mediates ubiquitination and subsequent proteasomal degradation of DAPK1, thereby antagonizing anti-apoptotic effects of DAPK1 to promote TNF-induced apoptosis (By similarity). Involved in ubiquitination of centriolar satellite CEP131, CEP290 and PCM1 proteins and hence inhibits primary cilium formation in proliferating cells. Mediates 'Lys-63'-linked polyubiquitination of TBK1, which



probably participates in kinase activation.

#### **Cellular Location**

Cytoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriolar satellite. Cell membrane. Note=Localizes to the plasma membrane (By similarity) According to PubMed:15048887, it is mitochondrial, however such localization remains unclear. Displaced from centriolar satellites in response to cellular stress, such as ultraviolet light (UV) radiation or heat shock.

#### **Tissue Location**

Widely expressed at low level. Expressed at higher level in spinal cord, ovary, whole brain, and all specific brain regions examined.

#### MIB1 Antibody - Protocols

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

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

### MIB1 Antibody - Images



Western blot analysis of MIB1 in A431 cell lysate with MIB1 antibody at 1  $\mu$ g/ml.





Immunocytochemistry of MIB1 in A431 cells with MIB1 antibody at 5  $\mu$ g/mL.



Immunofluorescence of MIB1 in A431 cells with MIB1 antibody at 20  $\mu$ g/mL.

## MIB1 Antibody - Background

The E3 ubiquitin-protein ligase MIB1, also known as Mindbomb homolog 1, contains multiple ankyrin repeats and RING finger domains that functions as an E3 ubiquitin ligase (1). MIB1 interacts with and regulates the cellular expression of the death-associated protein kinase 1 (DAPK1) protein by promoting its ubiquitination and degradation (1). It also positively regulates Notch signaling by ubiquitinating the Notch receptors, thereby facilitating their endocytosis (2).

## MIB1 Antibody - References

Jin Y, Blue EK, Dixon S, et al. A death-associated protein kinase (DAPK)-interacting protein, DIP-1, is an E3 ubiquitin ligase that promotes tumor necrosis factor-induced apoptosis and regulates the cellular level of DAPK. J. Biol. Chem. 2002; 277:46980-6. Hansson EM, Lanner F, Das D, et al. Control of Notcholigand endocytosis by ligand-receptor interaction. J. Cell Sci. 2010; 123:2931-42.