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

Mib1/Mindbomb Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2172a

Product Information

Application	IF, IHC-P, WB, E
Primary Accession	Q86YT6
Other Accession	Q6GNY1, Q80SY4, Q804S5
Reactivity	Human, Mouse
Predicted	Zebrafish, Mouse, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	110136
Antigen Region	13-42

Additional Information

Gene ID	57534
Other Names	E3 ubiquitin-protein ligase MIB1, 632-, DAPK-interacting protein 1, DIP-1, Mind bomb homolog 1, Zinc finger ZZ type with ankyrin repeat domain protein 2, MIB1, DIP1, KIAA1323, ZZANK2
Target/Specificity	This Mib1/Mindbomb antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 13-42 amino acids from the N-terminal region of human Mib1/Mindbomb.
Dilution	IF~~1:20~100 IHC-P~~1:100~500 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 prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	Mib1/Mindbomb Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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.

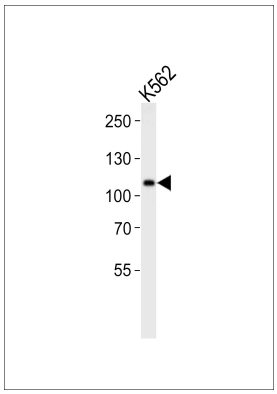
Background

MIB is an E3 ubiquitin-protein ligase that mediates ubiquitination of Delta receptors, which act as ligands of Notch proteins. This protein positively regulates the Delta-mediated Notch signaling by ubiquitinating the intracellular domain of Delta, leading to endocytosis of Delta receptors. MIB probably mediates ubiquitination and subsequent proteasomal degradation of DAPK1, thereby antagonizing anti-apoptotic effects of DAPK1 to promote TNF-induced apoptosis.

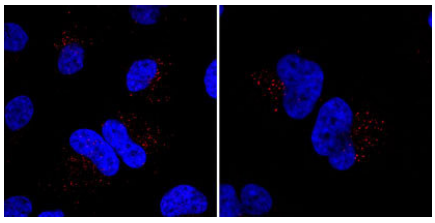
References

Itoh, M., et al., Dev. Cell 4(1):67-82 (2003).
Jin, Y., et al., J. Biol. Chem. 277(49):46980-46986 (2002).

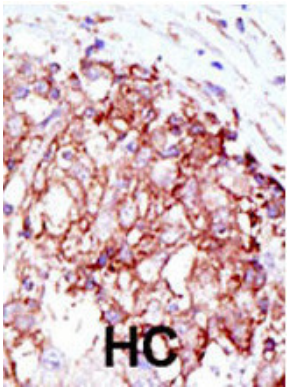
Images



MIB Antibody (K28) (Cat. #AP2172a) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the MIB antibody detected the MIB protein (arrow).



Immunofluorescent staining of Hela cells incubated with MIB Antibody (N-term) (Cat # AP2172a) at a dilution of 1:20. Data courtesy of Dr. Vyacheslav Akimov, University of Southern Denmark.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.