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MAK10 Antibody

Catalog # ASC10947

Product Information

Application	WB, E, IHC-P
Primary Accession	Q5VZE5
Other Accession	NP_078911, 145275204
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	83639
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	MAK10 antibody can be used for detection of MAK10 by Western blot at 1 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL.

Additional Information

Gene ID	60560
Other Names	N-alpha-acetyltransferase 35, NatC auxiliary subunit, Embryonic growth-associated protein homolog, Protein MAK10 homolog, NAA35, EGAP, MAK10
Target/Specificity	MAK10;
Reconstitution & Storage	MAK10 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	MAK10 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NAA35
Synonyms	EGAP, MAK10
Function	Auxillary component of the N-terminal acetyltransferase C (NatC) complex which catalyzes acetylation of N-terminal methionine residues (PubMed:19398576, PubMed:37891180). N-terminal acetylation protects proteins from ubiquitination and degradation by the N-end rule pathway (PubMed:37891180). Involved in regulation of apoptosis and proliferation of smooth muscle cells (PubMed:19398576).

Cellular Location Cytoplasm.

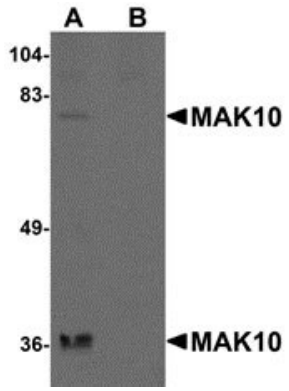
Background

MAK10 Antibody: The MAK10 gene encodes a 733-amino acid protein with several regions of similarity to T cell receptor alpha-subunit V (variable) regions in yeast. The mammalian homologue of yeast MAK10, also known as EGAP, is one subunit of a novel N-terminal acetyltransferase (NAT) that is highly conserved among vertebrate species. It is expressed in a variety of tissues in the developing rat embryo but restricted in expression in the adult, remaining detectable only in tissues undergoing continual cell renewal or in cells responding to pathological injury. The MAK10-NAT complex is an essential regulatory enzyme controlling the function of a subset of proteins required for embryonic growth control and vessel development. This complex functionally co-assembles in mammalian cells to regulate cell proliferation and is essential for embryonic development, at least in part through the regulation of target of rapamycin (TOR) signaling events. At least two isoforms of MAK10 are known to exist.

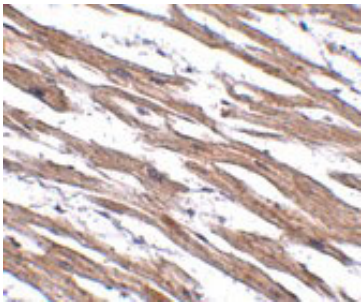
References

Lee YJ et al. MAK10, a glucose repressible gene necessary for replication of a dsRNA virus of Saccharomyces cerevisiae, has T cell receptor alpha-subunit motifs. Genetics1992; 132:87-96.
Yi XJ, et al. A novel epithelial wound-related gene is abundantly expressed in developing rat cornea and skin. Curr. Eye Res.2000; 20:430-40.
Wenzlau JM, et al. Embryonic growth-associated protein is one subunit of a novel N-terminal acetyltransferase complex essential for embryonic vascular development. Circ. Res.2006; 98:846-55.
Weiser-Evans MC, et al. Novel embryonic genes are preferentially expressed by autonomously replicating rat embryonic and neointimal smooth muscle cells. Circ. Res.2000; 87:608-15.

Images



Western blot analysis of MAK10 in rat heart tissue lysate with MAK10 antibody at 1 µg/mL in the (A) absence and (B) presence of blocking peptide.



Immunohistochemistry of MAK10 in human heart tissue with MAK10 antibody at 2.5 µg/mL.