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MAPRE1 Rabbit pAb

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Catalog # AP57211

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q15691
Reactivity	Rat
Predicted	Dog, Human, Mouse, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	29999
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MAPRE1
Epitope Specificity	2-100/268
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm > cytoskeleton. Cytoplasm > cytoskeleton > centrosome. Associated with the microtubule network at the growing distal tip of microtubules. Also enriched at the centrosome.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The protein encoded by this gene was first identified by its binding to the APC protein which is often mutated in familial and sporadic forms of colorectal cancer. This protein localizes to microtubules, especially the growing ends, in interphase cells. During mitosis, the protein is associated with the centrosomes and spindle microtubules. The protein also associates with components of the dynactin complex and the intermediate chain of cytoplasmic dynein. Because of these associations, it is thought that this protein is involved in the regulation of microtubule structures and chromosome stability. This gene is a member of the RP/EB family. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	22919
Other Names	Microtubule-associated protein RP/EB family member 1, APC-binding protein EB1, End-binding protein 1, EB1, MAPRE1 (HGNC:6890)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

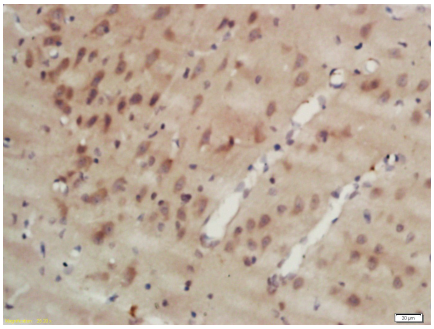
Name	MAPRE1 (HGNC:6890)
Function	Plus-end tracking protein (+TIP) that binds to the plus-end of microtubules and regulates the dynamics of the microtubule cytoskeleton (PubMed:12388762, PubMed:16109370, PubMed:19632184, PubMed:21646404, PubMed:23001180, PubMed:28726242, PubMed:28814570, PubMed:34608293). Recruits other +TIP proteins to microtubules by binding to a conserved Ser-X-Leu-Pro (SXLP) motif in their polypeptide chains (PubMed:19632184, PubMed:36592928). Promotes cytoplasmic microtubule nucleation and elongation (PubMed:12388762, PubMed:16109370, PubMed:19632184, PubMed:21646404, PubMed:28726242, PubMed:28814570). Involved in mitotic spindle positioning by stabilizing microtubules and promoting dynamic connection between astral microtubules and the cortex during mitotic chromosome segregation (PubMed:12388762, PubMed:34608293). Assists chromosome alignment in metaphase by recruiting the SKA complex to the spindle and stabilizing its interactions with microtubule bundles (K-fibers) (PubMed:27225956, PubMed:36592928). Also acts as a regulator of minus-end microtubule organization: interacts with the complex formed by AKAP9 and PDE4DIP, leading to recruit CAMSAP2 to the Golgi apparatus, thereby tethering non-centrosomal minus-end microtubules to the Golgi, an important step for polarized cell movement (PubMed:28814570). Promotes elongation of CAMSAP2-decorated microtubule stretches on the minus-end of microtubules (PubMed:28814570). Acts as a regulator of autophagosome transport via interaction with CAMSAP2 (PubMed:28726242). Functions downstream of Rho GTPases and DIAPH1 in stable microtubule formation (By similarity). Promotes microtubule-mediated GJA1/CX43 trafficking to cell membranes via its interaction with DSP, thereby facilitating gap junction intracellular communication (PubMed:25225338). May play a role in cell migration (By similarity).
Cellular Location	Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Golgi apparatus. Cytoplasm, cytoskeleton, spindle. Cytoplasm, cytoskeleton, spindle pole. Cell membrane. Note=Associated with the microtubule growing distal tips (PubMed:28814570). In addition to localizing to microtubule plus-ends, also exhibits some localization along the length of the microtubules (PubMed:27225956). Recruitment to the Golgi apparatus requires the presence of PDE4DIP isoform 13/MMG8/SMYLE (PubMed:25217626).
Tissue Location	Ubiquitously expressed.

Background

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Images

Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3%



Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-MAPRE1 Polyclonal Antibody, Unconjugated(AP57211) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.