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Mapre2 (16M10) Rat Monoclonal Antibody

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Catalog # AP93628

Product Information

Application	WB, IHC, IP
Primary Accession	Q8R001
Reactivity	Rat, Human, Mouse, Hamster
Clonality	Monoclonal
Calculated MW	36946

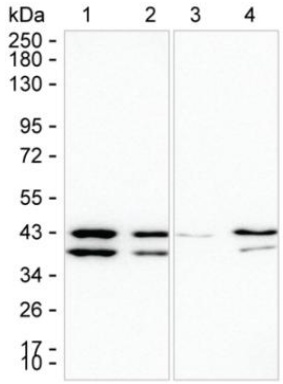
Additional Information

Gene ID	212307
Other Names	Microtubule-associated protein RP/EB family member 2, APC-binding protein EB2, End-binding protein 2, EB2, Mapre2
Dilution	WB~~1:1000 IHC~~1:100~500 IP~~N/A
Storage Conditions	-20℃

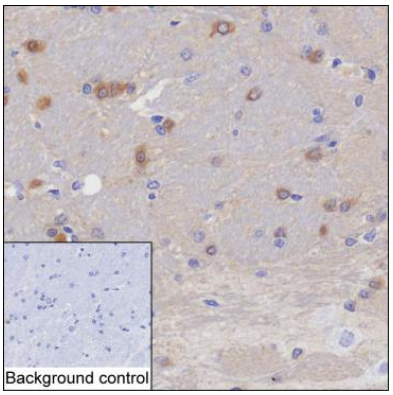
Protein Information

Name	Mapre2
Function	Adapter protein that is involved in microtubule polymerization, and spindle function by stabilizing microtubules and anchoring them at centrosomes. Therefore, ensures mitotic progression and genome stability (By similarity). Acts as a central regulator of microtubule reorganization in apico-basal epithelial differentiation (PubMed:23813963). Plays a role during oocyte meiosis by regulating microtubule dynamics (PubMed:35398309). Participates in neurite growth by interacting with plexin B3/PLXNB3 and microtubule reorganization during apico-basal epithelial differentiation (By similarity). Plays also an essential role for cell migration and focal adhesion dynamics. Mechanistically, recruits HAX1 to microtubules in order to regulate focal adhesion dynamics (By similarity).
Cellular Location	Cytoplasm. Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, spindle. Note=Associated with the microtubule network. Accumulates at the plus end of microtubules (PubMed:23813963).
Tissue Location	Expressed during early stages of apico-basal epithelial differentiation but down-regulated in most cells at later stages.

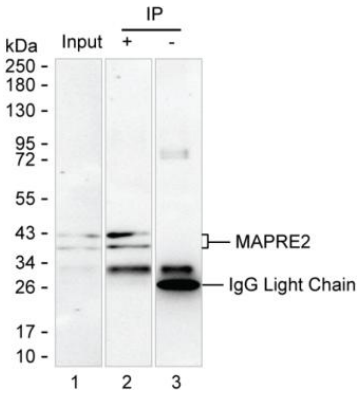
Images



Various protein samples were run on 6-18% SDS-PAGE under reducing conditions and blotted onto nitrocellulose membrane. AP93628 at 1 µg/mL was used as the primary antibody and peroxidase conjugated goat anti-rat IgG was used as the secondary antibody. Mapre2 band was visualized using ECL Western Blotting Substrate. Lane 1: 15 µg of rat brain tissue lysate Lane 2: 15 µg of mouse brain tissue lysate Lane 3: 15 µg of NIH-3T3 lysate Lane 4: 15 µg of PMA treated Jurkat lysate Result: AP93628 can detect Mapre2 by Western blotting.



IHC-P analysis of mouse brain tissue by anti-Mapre2 antibody (AP93628). IHC-P was performed using sections of the formalin-fixed paraffin-embedded mouse brain tissue. Antigen was retrieved through addition of boiling Tris/EDTA buffer pH 9 in a pressure cooker for 3 min. Endogenous peroxidase activity was quenched by incubating the sections with 3% H2O2 for 30 min at room temperature. The sections were then incubated with anti-Mapre2 primary antibody (AP93628) at 5 µg/mL at room temperature for 1 h. Poly-peroxidase conjugated goat anti-mouse IgG (which cross reacts with rat IgG) was used as the secondary antibody. Diaminobenzidine was used as the chromogen. The section was counterstained with hematoxylin. A tissue section incubated with phosphate- buffered saline followed by incubation with the secondary antibody was used as the background control. Result: Nerve cells are positively stained at the cytoplasm.



Immunoprecipitation was performed by incubation of 2.5 µg AP93628 with rat brain tissue lysate containing 200 µg total protein. After absorption with Protein G beads, the mixture was run on 6-18% SDS-PAGE and blotted onto nitrocellulose membrane. Anti-Mapre2 (AP93628) at 1 µg/mL was used as the primary antibody and peroxidase conjugated rabbit anti-mouse light chain specific IgG (which cross reacts with rat IgG) was used as the secondary antibody. The isotype control antibody was anti-KLH antibody. Lane 1: Rat brain tissue lysate Lane 2: Mapre2 immunoprecipitated from rat brain tissue lysate by AP93628 Lane 3: The same as Lane 2 but anti-KLH antibody was used as IgG isotype control antibody Result: AP93628 can immunoprecipitate Mapre2.