# **Anti-Dynamin 1 Antibody [A1B1]**

### EM1901-43



Product Type: Mouse monoclonal IgM, primary antibodies

Species reactivity: Human, Mouse, Rat
Applications: IHC-P, WB, IF-Cell

Molecular Wt: Predicted band size: 97 kDa

Clone number: A1B1

**Description:** This gene encodes a member of the dynamin subfamily of GTP-binding proteins. The

encoded protein possesses unique mechanochemical properties used to tubulate and sever membranes, and is involved in clathrin-mediated endocytosis and other vesicular trafficking processes. Actin and other cytoskeletal proteins act as binding partners for the encoded protein, which can also self-assemble leading to stimulation of GTPase activity. More than sixty highly conserved copies of the 3' region of this gene are found elsewhere in the genome, particularly on chromosomes Y and 15. Alternatively spliced transcript variants

encoding different isoforms have been described.

**Immunogen:** Recombinant protein within human Dynamin 1 aa 500-800.

**Positive control:** Rat brain tissue, mouse brain, SiHa, mouse brain tissue lysate, rat brain tissue lysate.

**Subcellular location:** Cytoskeleton, cytoplasm.

Database links: SwissProt: Q05193 Human | P39053 Mouse | P21575 Rat

**Recommended Dilutions:** 

 IHC-P
 1:1,000

 WB
 1:1,000

 IF-Cell
 1:50

**Storage Buffer:** 1\*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at  $+4^{\circ}$ C after thawing. Aliquot store at  $-20^{\circ}$ C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

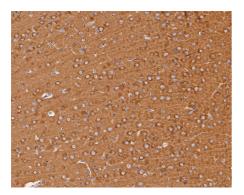
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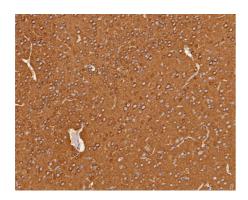


#### **Images**



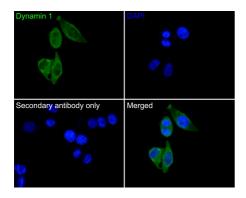
**Fig1:** Immunohistochemical analysis of paraffin-embedded rat brain tissue with Mouse anti-Dynamin 1 antibody (EM1901-43) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (EM1901-43) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig2:** Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Mouse anti-Dynamin 1 antibody (EM1901-43) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH $_2$ O and PBS, and then probed with the primary antibody (EM1901-43) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig3:** Immunocytochemistry analysis of SiHa cells labeling Dynamin 1 with Mouse anti-Dynamin 1 antibody (EM1901-43) at 1/50 dilution.

Cells were fixed in 4% paraformaldehyde for 30 minutes, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes, and then blocked with 2% BSA for 30 minutes at room temperature. Cells were then incubated with Mouse anti-Dynamin 1 antibody (EM1901-43) at 1/50 dilution in 2% BSA overnight at 4  $^{\circ}$ C. Goat Anti-Mouse IgG H&L (iFluor M 488, HA1125) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

**Fig4:** Western blot analysis of Dynamin 1 on different lysates with Mouse anti-Dynamin 1 antibody (EM1901-43) at 1/1,000 dilution.

Lane 1: Rat brain tissue lysate Lane 2: Mouse brain tissue lysate

Lysates/proteins at 40 µg/Lane.

Predicted band size: 97 kDa Observed band size: 100 kDa

Exposure time: 3 minutes;

4-20% SDS-PAGE gel.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### **Background References**

- 1. von Spiczak S. et. al. DNM1 encephalopathy: A new disease of vesicle fission. Neurology. 2017 Jul 25;89(4):385-394.
- 2. Lee MW. et. al. Molecular Motor Dnm1 Synergistically Induces Membrane Curvature To Facilitate Mitochondrial Fission. ACS Cent Sci. 2017 Nov 22;3(11):1156-1167.