Anti-Dynamin 1 Antibody [A1A12]

EM1901-44

Product Type:	Mouse monoclonal IgG2a, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, FC
Molecular Wt:	Predicted band size: 97 kDa
Clone number:	A1A12

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 555-770 / 864.

Positive control: MG-63, SiHa, A549, rat brain tissue lysate, mouse brain tissue lysate.

Subcellular location: Cytoskeleton, cytoplasm.

Database links: SwissProt: Q05193 Human

Recommended Dilutions:

WB	1:500-1:2,000
IF-Cell	1:50-1:200
FC	1:50-1:100

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

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

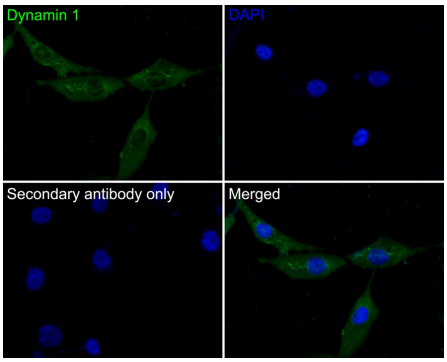

Fig1: Immunocytochemistry analysis of MG-63 cells labeling Dynamin 1 with Mouse anti-Dynamin 1 antibody (EM1901-44) at 1/50 dilution.

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 (EM1901-44) at 1/50 dilution in 2% BSA overnight at 4 ℃. Goat Anti-Mouse IgG H&L (iFluor™ 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.

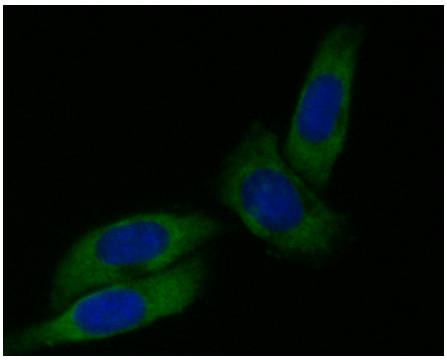

Fig2: ICC staining of Dynamin 1 in SiHa cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (EM1901-44, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Mouse IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

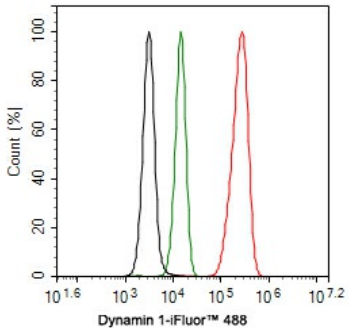

Fig3: Flow cytometric analysis of A549 cells labeling Dynamin 1.

Cells were fixed and permeabilized.Then stained with the primary antibody (EM1901-44, 1ug/ml) (red) compared with Mouse IgG1 Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Mouse IgG Secondary antibody (HA1125) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

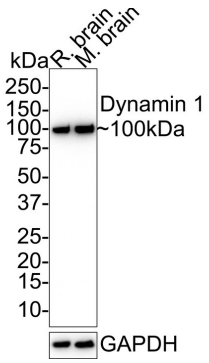

Fig4: Western blot analysis of Dynamin 1 on different lysates with Mouse anti-Dynamin 1 antibody (EM1901-44) at 1/1,000 dilution.

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: 5 minutes;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (EM1901-44) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

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.