

## Purified anti-Dynamin-1 Antibody

<b>Catalog# / Size</b>	604001 / 25 µg 604002 / 100 µg
<b>Clone</b>	P83G4B6
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	DNM1, DNM, DMN-1, dynamin 1
<b>Isotype</b>	Mouse IgG2a, κ
<b>Description</b>	Dynamin-1, also known as DMN-1, is a 100 kD protein with GTPase activity. Dynamin-1 is involved in several intracellular trafficking processes including synaptic vesicle recycling, neurotransmitter reuptake and receptor internalization. In addition, Dynamin-1 may be necessary for the establishment and proper maintenance of mature neuronal structure. Studies have shown that Dynamin-1 is upregulated during new neurite formation. Conversely, Dynamin-1 is downregulated during neurite retraction. Silencing the initiation codon for Dynamin limits the formation of axon-like structures.

### Product Details

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<b>Verified Reactivity</b>	Human, Mouse, Rat
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Recombinant human Dynamin-1 (515-750a.a.) expressed in E. coli.
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C.
<b>Application</b>	<a href="#">WB - Quality tested</a> <a href="#">IHC-P - Verified</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">Western blotting</a> . For Western blotting, the suggested use of this reagent is 1:250-1:2500 diluted (0.2 – 2 µg/mL). For immunohistochemical staining on formalin-fixed paraffin-embedded tissue sections, the suggested use of this reagent is 1:100-1:250 diluted (2 – 5 µg/mL). It is recommended that the reagent be titrated for optimal performance for each application.
<b>RRID</b>	AB_2716194 (BioLegend Cat. No. 604001) AB_2716195 (BioLegend Cat. No. 604002)

### Antigen Details

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<b>Structure</b>	864 amino acids with a predicted molecular weight of 97 kD.
<b>Distribution</b>	Cytoplasm
<b>Function</b>	Involved in producing microtubule bundles and able to bind and hydrolyze GTP
<b>Interaction</b>	Interacts with CAV1, SH3GLB1, SH3GL1, SH3GL2, SH3GL3, PHOCN, PACSIN1, PACSIN2, PACSIN3, SNX9, MYO1E, SNX33, UNC119 and DIAPH1.
<b>Biology Area</b>	Cell Biology, Cell Motility/Cytoskeleton/Structure, Neuroscience, Neuroscience Cell Markers
<b>Antigen References</b>	

1. Obar RA, *et al.* 1990. *Nature*. 347:256.
2. Chen-Hwang MC, *et al.* 2002. *J Biol Chem*. 277:17597.
3. Grabs D, *et al.* 1997. *J Biol Chem*. 272:13419.
4. Wunderlich L, *et al.* 1999. *Cell. Signal*. 11:25.

Gene ID [1759](#)

## Related Protocols

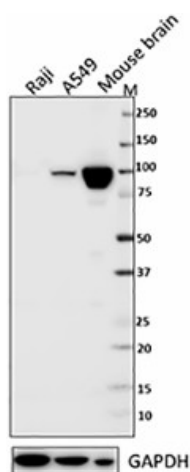
[Western Blotting Protocol](#)

[Immunohistochemistry Protocol for Paraffin-Embedded Sections](#)

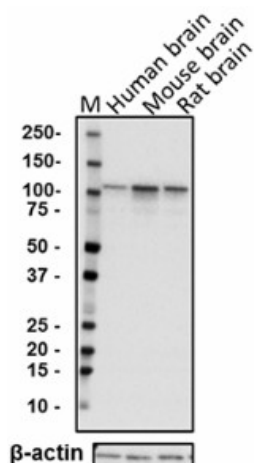
## Other Formats

Purified anti-Dynamin-1

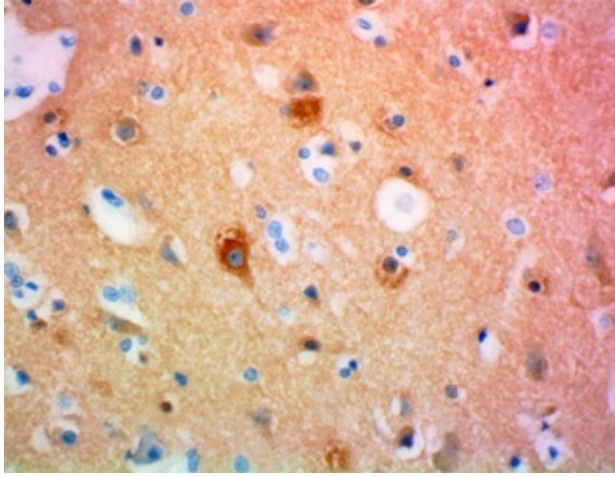
## Product Data



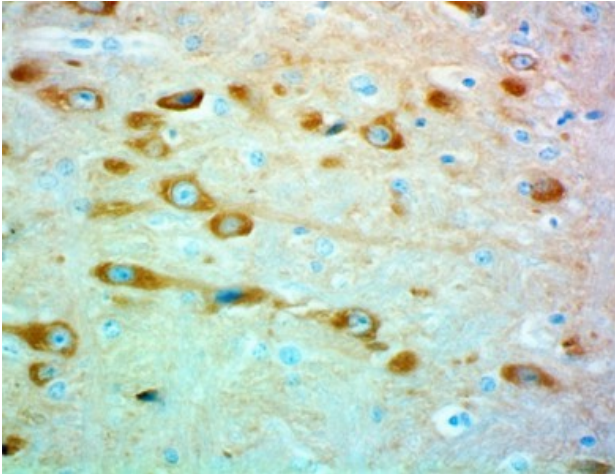
Total lysates (15  $\mu$ g protein) from Raji (negative control), A549 and mouse brain were resolved by electrophoresis (4-20% Tris-glycine gel), transferred to nitrocellulose, and probed with 1:500 diluted (1  $\mu$ g/mL) purified anti-Dynamin-1 antibody (upper). Proteins were visualized by chemiluminescence detection using 1:3000 diluted HRP goat anti-mouse-IgG secondary antibody for anti-Dynamin-1 antibody or HRP Donkey anti-rabbit IgG Antibody for GAPDH antibody. 1:2000 dilution of GAPDH (poly6314) antibody was used as a loading control (lower). Lane M: MW ladder.



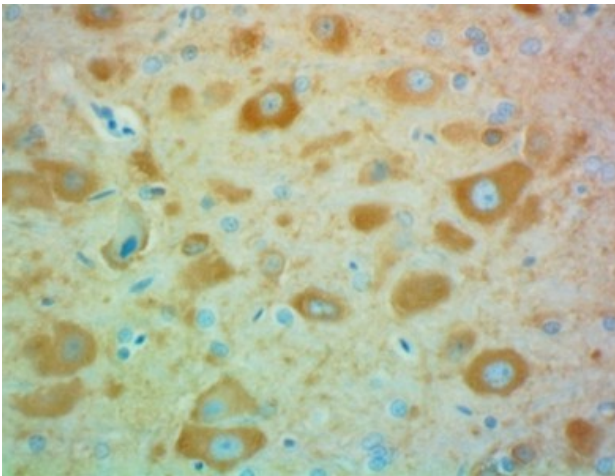
Total lysates (15  $\mu$ g protein) from human brain, mouse brain and rat brain were resolved by electrophoresis (4-12% Bis-Tris gel), transferred to nitrocellulose, and probed with 1:250 diluted (2  $\mu$ g/mL) purified anti-Dynamin-1 antibody (upper). Proteins were visualized by chemiluminescence detection using 1:3000 diluted HRP goat anti-mouse-IgG secondary antibody. 1:1000 (0.5 microg/mL) dilution of  $\beta$ -actin (2F1-1) antibody was used as a loading control (lower). Lane M: MW ladder.



IHC staining of Formalin Fixed Paraffin Embedded (FFPE) normal human brain tissue. Following antigen retrieval using Sodium Citrate H.I.E.R, the tissue was incubated with anti-Dynamamin-1 antibody (Clone P83G4B6) at 5 µg/mL overnight at 4°C. BioLegend's Ultra-Streptavidin (USA) HRP kit (Multi-Species, DAB) was used for detection followed by hematoxylin counterstaining, according to the protocol provided. Images were captured with a 40X objective.



IHC staining of Formalin Fixed Paraffin Embedded (FFPE) mouse brain tissue. Following antigen retrieval using Sodium Citrate H.I.E.R, the tissue was incubated with anti-Dynamamin-1 antibody (Clone P83G4B6) at 5 µg/mL overnight at 4°C. BioLegend's Ultra-Streptavidin (USA) HRP kit (Multi-Species, DAB) was used for detection followed by hematoxylin counterstaining, according to the protocol provided. Images were captured with a 40X objective.



IHC staining of Formalin Fixed Paraffin Embedded (FFPE) rat brain tissue. Following antigen retrieval using Sodium Citrate H.I.E.R, the tissue was incubated with anti-Dynamamin-1 antibody (Clone P83G4B6) at 5 µg/mL overnight at 4°C. BioLegend's Ultra-Streptavidin (USA) HRP kit (Multi-Species, DAB) was used for detection followed by hematoxylin counterstaining, according to the protocol provided. Images were captured with a 40X objective.

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