



Product Information

MONOCLONAL ANTI-DYNAMIN, CLONE D5, Purified Mouse Immunoglobulin

Product Number **D 0438**

Product Description

Monoclonal Anti-Dynamin (mouse IgG1 κ isotype) is derived from the D5 hybridoma produced by the fusion of Ag8 mouse myeloma cells and splenocytes from a mouse immunized with recombinant human dynamin (amino acids 1-750). This antibody is purified from mouse ascites using either protein A or protein G affinity chromatography.

Monoclonal Anti-Dynamin specifically recognizes native dynamin (98 kDa) by immunoblotting. The antibody has also been shown to be effective in immunofluorescence and immunoprecipitation. The antibody cross-reacts with human, mouse and rat dynamin.

Dynamin is a GTPase required for endocytosis of clathrin-coated vesicles from the membrane^{1,2}. Dynamin's involvement in endocytosis was first discovered during the characterization of the temperature-sensitive paralytic shibire mutation from *Drosophila melanogaster*. Three closely related isoforms have been identified in mammals. Dynamin-1 is expressed exclusively in neurons, dynamin-2 is ubiquitously expressed and dynamin-3 is expressed primarily in the testes³. Each of these isoforms of dynamin also has several splice variants. This suggests that each isoform/splice variant may have separate intracellular targets or function in the budding of distinct vesicle types. Common domain features of the dynamin proteins include an amino acid terminal GTPase domain, a central pleckstrin homology domain and a highly basic proline-rich carboxyl terminus with several Src homology 3 (SH3) domains. These SH3 domains target the dynamin to the clathrin-coated pit⁴⁻⁶. Dynamin is known to interact with at least two proteins, AP-2 adaptor protein complex and amphiphysin⁷.

Reagents

Monoclonal Anti-Dynamin is supplied at 0.1 mg/ml in 0.05 M sodium phosphate buffer containing 0.2% gelatin and 0.1% sodium azide as a preservative.

Precautions and Disclaimer

Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability

Store at 2-8 °C. Do Not Freeze. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

Product Profile

Recommended working concentration are 0.5-3 μ g/ml for immunoblotting using mouse or rat brain extracts; 1-5 μ g/mg cell lysate for an ³⁵S-Met immunoprecipitation assay using rat brain extract; and 1.0-2.0 μ g/ml for immunofluorescence and immunocytochemistry using frozen sections of rat brain.

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, we recommend determining optimal working dilution by titration.

References

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