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Product Information

Monoclonal Anti-Dynamin 2 (DNM2), clone DYN2-11
produced in mouse, purified from hybridoma cell culture

Catalog Number **SAB4200661**

Product Description

Monoclonal Anti-Dynamin 2 (DNM2) (mouse IgG1 isotype) is derived from the hybridoma DYN2-11 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to a sequence at the N-terminal region of human DNM2 (GeneID: 1785), conjugated to KLH. The corresponding sequence is identical in mouse and rat. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Monoclonal Anti-Dynamin 2 (DNM2) recognizes human, rat, mouse, monkey and dog DNM2. The antibody may be used in various immunochemical techniques including immunoblotting (~98 kDa) immunoprecipitation and immunofluorescence. Detection of the DNM2 band by immunoblotting is specifically inhibited by the immunizing peptide.

Dynamin 2 (DNM2) also known as DYN2 belongs to the Dynamins family of GTPase proteins. Dynamins play a crucial role in the formation of endocytic coated vesicles, vesicle budding, organelle fission, organelle fusion, cytokinesis and more.[1-2] A member of this family, DNM2, is a ubiquitously expressed mechano-GTPase involved in different stages of the secretory pathway. Its most well-known function relates to the scission of nascent vesicles from the plasma membrane during endocytosis; however, it also participates in the formation of new vesicles from the Golgi network, vesicle trafficking, fusion processes and in the regulation of microtubule, and actin cytoskeleton dynamics. Mutations in the dynamin-2 gene have been associated to two hereditary neuromuscular disorders: Charcot–Marie–Tooth neuropathy and centronuclear myopathy.[2-3]Furthermore, DNM2 is upregulated in pancreatic cancer as it activates Rac1.It also promotes lamellipod protrusion, and invasive cellular migration.[4]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 2-4 µg/mL is recommended using whole extract of HeLa cells.

Immunoprecipitation: a working amount of 5-10 µg is recommended using whole extract of HeLa cells.

Immunofluorescence: a working concentration of 5-10 µg/mL is recommended using HeLa cells.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

1. Heymann, J.A., and Hinshaw, J.E., *J. Cell Sci.,* **122**, 3427-3431 (2009).
2. Ferguson, S.M., and De Camilli, P., *Nat. Rev. Mol. Cell Biol.*, **13**, 75-88 (2012).
3. González-Jamett, A.M, et al., *Front. Endocrinol. (Lausanne),* **4,** 126 (2013).
4. Razidlo, G.L., et al., *Dev. Cell*, **24**, 573-585 (2013).

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