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Product Information

Monoclonal Anti-NF1, clone NF1-333
produced in mouse, tissue culture supernatant

Catalog Number **SAB4200499**

Product Description

Monoclonal Anti-NF1 (mouse IgM isotype) is derived from the hybridoma NF1-333 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-terminus of human NF1 (GeneID: 4763), conjugated to KLH. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is provided as culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-NF1 recognizes human, monkey, dog, rat and mouse NF1. The product may be used in several immunochemical techniques including immunoblotting (~ 250 kDa) and flow cytometry. Staining of the NF1 band in immunoblotting is specifically inhibited by the immunizing protein.

Neurofibromatosis type 1 (NF1), also known as von Recklinghausen peripheral or classical neurofibromatosis, is one of the most common autosomal dominant diseases. It is caused by mutations in the *NF1* gene, which is located at chromosome 17q11.2. The *NF1* gene encodes neurofibromin (Nf1) that is predominantly expressed in neurons, Schwann cells, oligodendrocytes, astrocytes and leukocytes.[1] NF1 has two potentially functional domains; RasGAP and Sec14.[1-2] It acts as a negative regulator of the p21-Ras/mitogen-activated protein kinase (MAPK) pathway as well as a tumor suppressor gene. Consistent with a central role for neurofibromin in cellular function, recent cancer genome sequencing studies have found that somatic NF1 gene mutations occur not only in association with NF1, but also in a number of other common cancers. A variety of benign and malignant tumours are associated with NF1 and all involve tumorigenesis of neural crest-derived cells.[3]

Reagent

The product is supplied as a tissue culture supernatant containing 15 mM sodium azide as a preservative. The product contains fetal calf serum.

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 extended storage, freeze at –20 °C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, 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 dilution of 1:1,000-1:2,000 is recommended using Caco-2 total cell extracts.

Flow Cytometry: a working dilution of 1:25-1:50/test is recommended using A549 cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

1. Trovó -Marqui, A.B., and Tajara, E.H., *Clin. Genet.*, **70**, 1-13 (2006).
2. Jouhilahti, E.M., et al., *Am. J. Pathol.,* **178**, 1932-1939 (2011).
3. Laycock-van Spyk, S., et al., *Hum. Genomics,* **5**, 623-690 (2011).

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