

Product Information

Monoclonal Anti-EPS8, clone EPS8-2

produced in mouse, purified from hybridoma cell culture

Catalog Number **SAB4200658**

Product Description

Monoclonal Anti- EPS8 (mouse IgG2a isotype) is derived from the hybridoma EPS8-2 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 EPS8 (GeneID: 2059), conjugated to KLH. 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-EPS8 recognizes human EPS8. The antibody may be used in various immunochemical techniques including immunoblotting (~90 kDa), immunoprecipitation, immunofluorescence and flow cytometry. Detection of the EPS8 band by immunoblotting is specifically inhibited by the immunizing peptide.

EPS8 (Epidermal growth factor receptor kinase substrate 8), also known as DFN102, was originally identified as a substrate for the kinase activity of EGFR. EPS8 was also found to be an actin filament barbed-end capping protein, thus essential for cell motility and regulation of actin filaments growth.¹ EPS8 scaffolds together with Abi1 and Sos1 to a trimeric complex which is required for activation of the small GTPase Rac. On the other hand, EPS8 form complexes with RN-tre, a Rab5 GTPase activating protein, to inhibit EGFR internalization.¹⁻² EPS8 is involved in the regulation of processes such as axonal filopodia growth, stereocilia length, dendritic cell migration and cancer cell migration and invasion. It is reported to be expressed at elevated levels in a range of human malignancies. This protein is also involved in spine morphogenesis and plasticity and may characterize forms of intellectual disabilities. For instance, reduced EPS8 levels were reported in brains of autism patients.³⁻⁵

Reagent

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

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 2.5-5 µg/mL is recommended using whole extracts of HepG2 cells.

Immunofluorescence: a working concentration of 10-20 µg/mL is recommended using whole extracts of A549 cells.

Flow Cytometry: a working dilution of 10-20 µg/test is recommended using A549 cells.

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

References

1. Disanza, A., et al., *Nature Cell Biol.*, **6**, 1180-1188 (2004).
2. Di Fiore, P.P., and Scita, G., *Int. J. Biochem. Cell Biol.*, **34**, 1178-1183 (2002).
3. Menna, E., et al., *EMBO J.*, **32**, 1730-1744 (2013).
4. Li, Y.H., et al., *Future Oncol.*, **9**, 1587-1594 (2003).
5. Abdel-Rahman, W.M., et al., *World J. Gastroenterol.*, **18**, 3896-3903 (2012).

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