Product Information

3050 Spruce Street, Saint Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Monoclonal Anti-SNX4
Clone SN43
produced in mouse, purified immunoglobulin

Catalog Number **S5197**

Product Description

Monoclonal Anti-SNX4 (mouse IgG1 isotype) is derived from the hybridoma SN43 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to amino acids 7-24 of human SNX4 (Gene ID: 8723). The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-SNX4 reacts specifically with human SNX4. Applications include ELISA, immunoblotting (~52 kDa), and immunocytochemistry.

Sorting Nexins (SNXs) are a large family of proteins containing 29 members in mammals and 10 in yeast. Mammalian sorting nexins function in pro-degradative sorting, internalization, endosomal recycling, and endosomal sorting. In yeast, they act in the regulation of cargo retrieval. The members of this protein family contain a SNX pho homology (PX) domain (SNX-PX) that acts as a phosphoinositide-binding motif responsible for targeting the SNX proteins to phosphoinositide-enriched membranes. SNXs are oligomeric proteins that interact with lipids and proteins.[1-3] Some of the SNXs (1, 2, 4, 5, 6, 7, 8, 9 and 18) have a Bin/Amphiphysin/Rvs (BAR) domain. This domain functions as a dimerization and membrane-binding module. Thus, for these SNXs, this domain determines their cell localization. SNX1 is responsible for the regulation of cell-surface expression of the human epidermal growth factor (EGF) receptor. SNX2, 3 and 4 interact with several tyrosine kinase receptors, as well. [1-3] SNX4 and amphiphysin 2 interact in the cell cytosol and on cytoplasmic vesicular structures. Over expression of SNX4 inhibits the endocytosis of the transferrin receptor as efficiently as amphiphysin 2. Thus the complex SNX4/amphiphysin 2 is important for the control of the endosome fate, after the formation of the endocytic vesicle.[4]

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: ~2.0 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 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 discard if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 2-4 µg/mL is recommended using total cell extract of SNX4-GFP transfected HEK-293T cells.

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

References

1. Caolyn, A.W., and Dixon, J.E., *Nature Rev. Mol. Cell Biol.*, **3**, 919-931 (2002).
2. Carlton, J., et al., *Traffic*, **6**, 75-82 (2005).
3. Teasdale, R.D., et al., *Biochem. J.*, **358**, 7-16 (2001).
4. Leprince, C., et al., *J. Cell Sci.*, **116**, 1937-1948 (2003).

EK,KAA,CS,PHC 10/07-1