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Product Information

Monoclonal Anti-SNX6, Clone SNX6-76
produced in mouse, ascites fluid

Catalog Number **S6324**

Product Description

Monoclonal Anti-SNX6 (mouse IgA isotype) is derived from the hybridoma SNX6-76 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a peptide corresponding to amino acids 19-35 of human SNX6 (GeneID 58533), conjugated to KLH. The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2.

Monoclonal Anti-SNX6 recognizes human, bovine, rat, and mouse SNX6. The antibody may be used in various immunochemical techniques including ELISA and immunoblotting (~ 47 kDa).

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 regulation of cargo retrieval. Members of this protein family contain a SNX Phox 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 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, the BAR domain determines their cell localization. A member of this group, SNX6, can hetero-oligomerize and co localize intracellularly with SNX1, 2, and 4. In parallel, it strongly interacts with the TGF-β family of receptor serine-threonine kinases, thus enabling other SNXs to associate with members of this receptor family.[4] SNX6 has also been found to interact with GIT1 in an endosomal, EGF-regulated manner to enhance EGFR degradation, thereby altering EGFR signaling.[5] The fact that suppression of SNX6 and/or SNX5 resulted in a significant loss of SNX1, further suggested SNX6 as a functional equivalent of the Vps17p, a yeast component of the membrane bound coat, participating in the retromer.[6]

Reagent

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

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 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 minimum antibody dilution of 1:2,500-1:5,000 is recommended using total extracts of 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. 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. Park, T.W., et al., *J. Biol. Chem.,* **276,** 19332-19339 (2001).
5. Cavet, M.E., et al., *FASEB J.,* **22**, 3607-3616 (2008).
6. Wassmer, T., et al., *J. Cell Sci.,* **120**, 45-54 (2007).

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