3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

Anti-Syntaxin 8
produced in rabbit, affinity isolated antibody

Catalog Number **S8945**

Product Description

Anti-Syntaxin 8 is developed in rabbit using a synthetic peptide corresponding to amino acids 117-134 located at the mid-region of rat syntaxin 8, conjugated to KLH, as immunogen. This sequence is identical in mouse syntaxin 8 and is highly conserved (two amino acid substitutions) in human syntaxin 8. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Syntaxin 8 specifically recognizes rat syntaxin 8 (27 kDa). Applications include immunoblotting and immunoprecipitation. Staining of the syntaxin 8 band in immunoblotting is specifically inhibited with the syntaxin 8 immunizing peptide (rat, amino acids 117-134).

Trafficking between intracellular membrane compartments is largely mediated by vesicular transport. Syntaxins belong to the large family of target-soluble NSF-attachment protein receptors (t-SNAREs) involved in docking and fusion of vesicles. Syntaxins function during vesicular transport as receptors on the target membrane, and contribute to the specificity of the docking and fusion process by interacting with vesicle-associated receptors (v-SNAREs).[1] Several members of the syntaxin family have been identified and each localizes to a specific membrane compartment, including the plasma membrane, endoplasmic reticulum (ER) and Golgi apparatus, along distinct exocytotic and endocytotic pathways. Syntaxin 8 (Stx8, 27 kDa), is a member of the t-SNARE family that mediates endocytic trafficking in mammalian cells.[2-6] Syntaxin 8 shares 23% identity with syntaxin 6 and is ubiquitously expressed in multiple tissues, with highest levels in the heart. Like other syntaxins, syntaxin 8 is anchored to membranes by a C-terminal hydrophobic domain and appears to contain a helical domain involved in the formation of a SNARE complex. When expressed in mammalian cells, syntaxin 8 colocalizes with markers of the endoplasmic reticulum (ER). Considerable evidence indicates that syntaxin 8 is localized to membrane compartments of the early endosome (EE). In endosomal membranes, syntaxin 8 has been shown to form complexes with another component of the vacuolar EE, syntaxin 7. Syntaxin 8 has been suggested to function in clathrin-independent vesicular transport and membrane fusion events necessary for protein transport from the EE to the late endosome (LE).

Reagent

The product is provided as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: approx. 2 mg/ml

Precautions and Disclaimer

Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous 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, 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

A working concentration of 2-4 µg/ml is determined by immunoblotting, using a whole cell extract of the rat kidney NRK cell line and the rat pheochromocytoma PC12 cell line.

10-20 µg of the antibody can immunoprecipitate syntaxin 8 protein from a NRK cell lysate.

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

References

1. Lin, R.C., and Scheller, R.H., *Annu. Rev. Cell Dev. Biol.*, **16**, 19-49 (2000).
2. Wang, H., et al., *Gene*, **199**, 39-48 (1997).
3. Wong, S.H., et al., *J. Biol. Chem*., **273**, 375-380 (1998).
4. Nakamura, N., et al., *J. Biol. Chem*., **275**, 6523-6525 (2000).
5. Mullock, B.M., et al., *Mol. Biol. Cell*, **11**, 3137-3153 (2000).
6. Ward, D.M., et al., *Mol. Biol. Cell*, **11**, 2327-2333 (2000).
7. Collins, F.R., et al., *J. Immunol*., **169**, 325-3256 (2002).

ER,MCT,PHC 10/05-1

Sigma brand products are sold through Sigma-Aldrich, Inc.
Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.