

Product Information

ANTI-MUNC-18

Developed in Rabbit, Affinity Isolated Antibody

Product Number **M 4438**

Product Description

Anti-Munc-18 is developed in rabbit using a highly-purified synthetic peptide corresponding to amino acids 58-70 (VEDINKRREPIPS) of the human munc-18 protein conjugated to KLH as the immunogen. This sequence is completely conserved in human, mouse, rat, bovine, and canine. The antibody is affinity isolated on immobilized immunogen.

Anti-Munc-18 specifically recognizes the munc-18 protein (67 kDa) in rat brain extracts by immunoblotting and immunoprecipitation.

Munc-18 is a cytosolic brain protein of 67 kDa that plays a key role in the fusion of vesicles with the plasma membrane. Functional interactions have been demonstrated between munc-18, synaptosomal associated protein of 25 kDa (SNAP-25), synaptobrevin and syntaxin.¹ *Munc-18* is the mammalian homolog of the *C. elegans* gene *unc-18*. Mutations in the gene encoding munc-18 can result in accumulation of acetylcholine and a paralytic phenotype suggestive of a neurotransmitter release defect. Thus, munc-18 appears to be required by the synaptic vesicle fusion complex. Two munc-18 isoforms have been identified.² Munc-18-1 is expressed primarily in the brain, while Munc-18-2 is expressed in most tissues.

Reagent

Anti-Munc-18 is supplied as 100 µg of affinity isolated rabbit antibody in phosphate buffered saline containing 1.0 mg/ml bovine serum albumin and 0.05% sodium azide.

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

Store the antibody at -20 °C. Repeated freezing and thawing is not recommended. 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

The recommended working dilution for immunoblotting is 1:1000.

The working dilution for immunoprecipitation is assay dependent.

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, we recommend determining optimal working dilutions by titration test.

References

1. Hata, Y., et al., *Nature*, **366**, 347-351 (1993a).
2. Hata, Y., and Sudhof, T.C., *J. Biol. Chem.*, **270**, 13022-13028 (1995).

mje 11/01

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.