

Product Information

ANTI-SNAP-23

Developed in Rabbit, Affinity Isolated Antibody

Product Number **S 9816**

Product Description

Anti-SNAP-23 (synaptosomal-associated protein 23) is developed in rabbit using a highly purified synthetic peptide corresponding to amino acid residues 193-210 (CNKNRIDIANTRAKKLIDS), with an additional N-terminal cysteine, of the mouse SNAP-23 protein as the immunogen. The antibody is affinity isolated on immobilized immunogen.

Anti-SNAP-23 recognizes the SNAP-23 (23 kDa) in rat brain extract by immunoblotting.

The phenomenon of intracellular protein transport, specifically vesicle docking and vesicle fusion, involves distinct processes mediated by distinct proteins.^{1,2} Because the general membrane fusion events are catalyzed non-specifically, targeting of transport vesicles to specific acceptor membranes is thought to be determined prior to the vesicle docking and fusion process. The SNARE hypothesis argues that specific interactions between vesicle-associated membrane proteins (VAMPs), SNAP-25 and syntaxins form a SNAP receptor or SNARE complex that determines the destination membrane of the transport vesicle.³ Once at the appropriate acceptor membrane, SNAP and NSF bind to the SNARE complex and facilitate membrane fusion. The fact that SNAP-25 was not localized outside of the brain was puzzling to researchers until a ubiquitously expressed homolog, SNAP-23, was identified.⁴ SNAP-23 binds with high affinity to VAMPs and syntaxins and appears to be capable of regulating vesicle transport outside of the nervous system. Five isoforms of SNAP-23 have been identified.⁵ Although their distinct functions are unclear, the subcellular localization of the five isoforms is different. SNAP-23a and SNAP-23b are limited to the plasma membrane while the other three isoforms are localized both intracellularly and in the plasma membrane.

Reagents

Anti-SNAP-23 is supplied as 100 µg of affinity isolated antibody at 1 mg/ml in phosphate buffered saline containing 1 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 at -20 °C for one month. For extended storage, freeze at -20 °C in working aliquots. 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 is 1:500-1:1000 for immunoblotting.

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. Rothman, J.E., *Nature*, 372, 55-63 (1994).
2. Bennett, M.K. and Scheller, R.H., *Ann. Rev. Neurosci.*, 17, 219-264 (1994).
3. Söllner, T. et al., *Nature*, 362, 318-324 (1993).
4. Ravichandran, V. et al., *J. Biol. Chem.*, 271, 13300-13303 (1996).
5. Shukla, A. et al., *Biochem. Biophys. Res. Commun.*, 285, 320-327 (2001).

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