Product Information Sheet

Polyclonal Anti- Synaptosome-associated protein of 25,000 daltons, *SNAP25 (Magnetic Bead Conjugate)*

Catalogue No. PA1315-M
Lot No. 03I01
Ig type rabbit IgG
Size 100µg/vial
Specificity
Rat, mouse.
No cross reactivity with other proteins.

Recommended application
Immunoprecipitation (IP)

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminal of human SNAP25, identical to the related rat and mouse sequence.

Purity
Immunogen affinity purified.

Contents
Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN_3.

Storage
Store at 4°C for frequent use.

Description
This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic beads. It is useful for immunoprecipitation

BACKGROUND

Synaptosome-associated protein of 25,000 daltons also known as SNAP-25 is a protein which in humans encodes a 25-kD protein of 206 amino acids. It was first investigated as a neuron-specific gene preferentially expressed in mouse hippocampus. The tSNARE (the target-membrane soluble NSF-attachment protein receptor, where NSF is N-ethylmaleimide-sensitive fusion protein) synaptosomal-associated protein of 25 kDa (SNAP-25) is expressed in pancreatic B-cells and its cleavage by botulinum neurotoxin E (BoNT/E) abolishes stimulated secretion of insulin. In the nervous system, two SNAP-25 isoforms (a and b) have been described, which are produced by alternative splicing.[1] Nagy et al. (2004) identified mammalian Snap25a and Snap25b as targets of protein kinase A, a key regulator of neurosecretion that primes slowly releasable pools and readily releasable pools of secretory vesicles.[2] SNAP-25 inhibits P/Q- and L-type voltage-gated calcium channels located presynaptically[3] and interacts with the synaptotagmin C2B domain in Ca^{2+}-independent fashion[4]. In glutamatergic synapses SNAP-25 decreases the Ca^{2+} responsiveness, while it is naturally absent in GABAergic synapses[5].

REFERENCE

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2. Nagy, G.; Reim, K.; Matti, U.; Brose, N.; Binz, T.; Rettig, J.; Neher, E.; Sorensen, J. B. : Regulation of releasable vesicle pool sizes by protein kinase A-dependent phosphorylation of SNAP-25. *Neuron* 41: 417-429, 2004.
3. Hodel A (1998). "SNAP-25". *The International Journal of Biochemistry & Cell Biology* 30 (10): 1069–1073.
4. Chapman ER (2002). "Synaptotagmin: A Ca^{2+} sensor that triggers exocytosis?". *Nature Reviews Molecular Cell Biology* 3: 498–508.
5. Pozzi D, Verderio C, Patti L, Grumelli C, Inverardi F, Frassoni C, Bonanno G, Matteoli M (2004). "SNAP-25 modulation of calcium dynamics underlies differences in GABAergic and glutamatergic responsiveness to depolarization". *Neuron* 41 (4): 599–610.

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