

SNAP-25 Protein, Human, Recombinant (His)

General Information

Synonyms:	synaptosomal-associated protein, 25kDa;SEC9;SNAP;RIC-4;dj1068F16.2;SNAP-25;bA416N4.2;RIC4
Protein Construction:	A DNA sequence encoding the human SNAP25 (P60880-1) (Met 1-Gly 206) was expressed, with a polyhistidine tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	P60880-1
Molecular Weight:	24.8 kDa (predicted); 28 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

Synaptosomal-associated protein 25, also known as Super protein, Synaptosomal-associated 25 kDa protein, SNAP25 and SNAP, is a cytoplasm and cell membrane protein that belongs to the SNAP-25 family. SNAP25 / SUP contains 2 t-SNARE coiled-coil homology domains. SNAP25 / SUP is a membrane bound protein anchored to the cytosolic face of membranes via palmitoyl side chains in the middle of the molecule. SNAP25 / SUP protein is a component of the SNARE complex, which is proposed to account for the specificity of membrane fusion and to

directly execute fusion by forming a tight complex that brings the synaptic vesicle and plasma membranes together. SNAP25 / SUP is a Q-SNARE protein contributing two α -helices in the formation of the exocytotic fusion complex in neurons where it assembles with syntaxin-1 and synaptobrevin. SNAP25 / SUP is involved in the molecular regulation of neurotransmitter release. It may play an important role in the synaptic function of specific neuronal systems. SNAP25 / SUP associates with proteins involved in vesicle docking and membrane fusion. SNAP25 / SUP regulates plasma membrane recycling through its interaction with CENPF. SNAP25 / SUP inhibits P/Q- and L-type voltage-gated calcium channels located presynaptically and interacts with the synaptotagmin C2B domain in Ca^{2+} -independent fashion. In glutamatergic synapses SNAP25 / SUP decreases the Ca^{2+} responsiveness, while it is naturally absent in GABAergic synapses.

Reference

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Huang Q., et al., 2008, FEBS Lett. 582:1431-1436.

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