

# Human SNAP25 / SUP Protein (His Tag)



Sino Biological  
Biological Solution Specialist

Catalog Number: 11585-H07E

## General Information

### Gene Name Synonym:

bA416N4.2; dJ1068F16.2; RIC-4; RIC4; SEC9; SNAP; SNAP-25

### 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.

**Source:** Human

**Expression Host:** E. coli

## QC Testing

**Purity:** > 90 % as determined by SDS-PAGE

### Endotoxin:

Please contact us for more information.

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Met

### Molecular Mass:

The recombinant human SNAP25 consisting of 217 amino acids and has a calculated molecular mass of 24.8 kDa. It migrates as an approximately 28 kDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

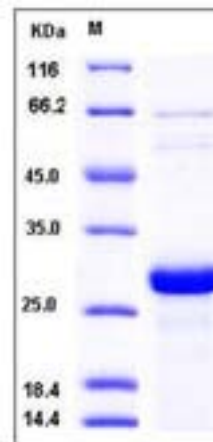
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Synaptosomal-associated protein 25, also known as Super protein, Synaptosomal-associated 25 kDa protein, SNAP25 and SNAP, is a cytoplasm and cell membrane protein which belongs to the SNAP-25 family. SNAP25 / SUP contains 2t-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  $\alpha$ -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<sup>2+</sup>-independent fashion. In glutamatergic synapses SNAP25 / SUP decreases the Ca<sup>2+</sup> responsiveness, while it is naturally absent in GABAergic synapses.

## References

- 1.Hodel A ,et al.,1998, Int. J. Biochem. Cell Biol. 30 (10): 1069-73.
- 2.Sudhof TC, et al.,2002, Nat Rev Neurosci 3 (8): 641-653.
- 3.Chapman ER et al.,2002, Nat. Rev. Mol. Cell Biol. 3(7): 498-508.

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