

APC955Hu01 100µg
Active Synaptosomal Associated Protein 25kDa (SNAP25)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Met1~Gly206

Tags: N-terminal His-tag

Purity: >95%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

Original Concentration: 200µg/mL

Applications: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 4.4

Predicted Molecular Mass: 27.0kDa

Accurate Molecular Mass: 27kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

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MAEDADMRNE LEEMQRRADQ LADESLESTR RMLQLVEESK DAGIRTLVML  
DEQGEQLERI EEGMDQINKD MKEAEKNLTD LGKFCGLCVC PCNKLKSSDA  
YKKAWGNNQD GVVASQPARV VDREQMAIS GGFIRRVNTD ARENEMDENL  
EQVSGIIGNL RHMALDMGNE IDTQNRQIDR IMEKADSNKT RIDEANQRAT  
KMLGSG
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[ACTIVITY]

Synaptosomal Associated Protein 25kDa (SNAP25) is a protein that plays a crucial role in the process of neurotransmitter release at the synaptic cleft. It is a member of the soluble N-ethylmaleimide-sensitive factor attachment protein receptor (SNARE) family, which is essential for the fusion of synaptic vesicles with the presynaptic membrane, leading to the release of neurotransmitters into the synaptic cleft. SNAP25 is specifically located on the plasma membrane of neurons and is involved in the regulation of exocytosis, a fundamental process in synaptic transmission. Syntaxin 1A (STX1A) binds to SNAP25 to form the SNARE complex, which is essential for the release of neurotransmitters. Thus a functional ELISA assay was conducted to detect the interaction of recombinant human SNAP25 and recombinant human STX1A. Briefly, STX1A was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to SNAP25-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-STX1A pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37°C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 μ L stop solution to the

wells and read at 450/630nm immediately. Measured by its binding ability in a functional ELISA. When recombinant SNAP25 is Immobilized at 2 ug/mL(100 uLwell), the concentration of STX1A that produces 50% optimal bindingresponse is found to be approximately 0.026ug/mL.

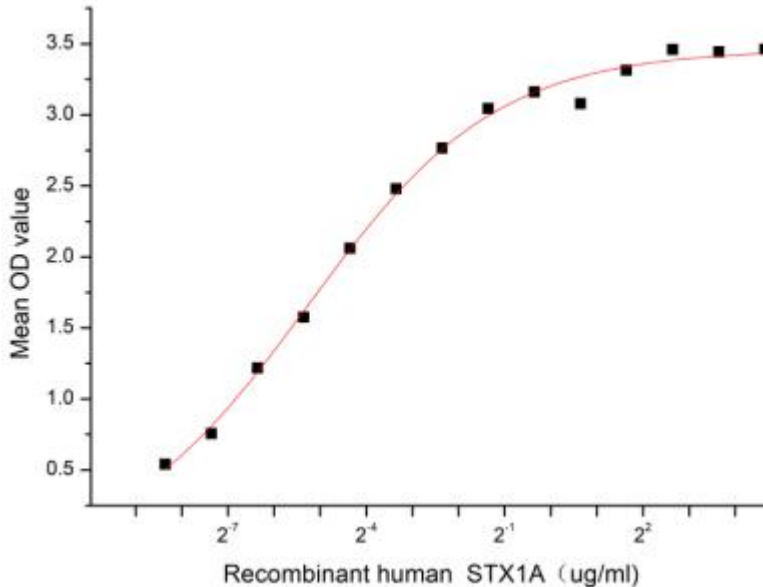


Figure 1. The binding activity of recombinant human SNAP25 and recombinant human STX1A

[IDENTIFICATION]

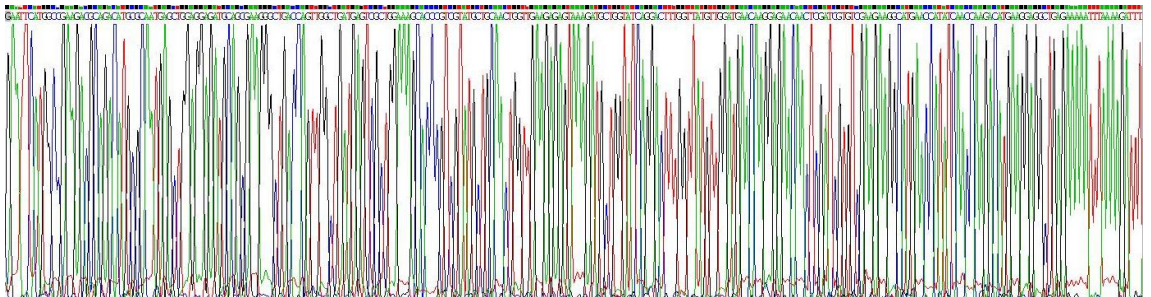


Figure 2. Gene Sequencing (extract)

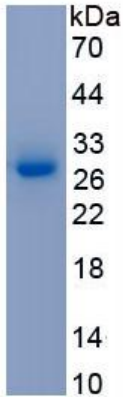


Figure 3. SDS-PAGE

Sample: Active recombinant SNAP25, Human

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.