

APD035Hu01 100µg

Active Syntaxin 1A, Brain (STX1A)

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~Val255

Tags: N-terminal His-tag

Purity: >90%

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: 4.6

Predicted Molecular Mass: 33.1kDa

Accurate Molecular Mass: 33kDa 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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MKDRTQELRT AKDSDDDDDV AVTVDRDRFM DEFFEQVEEI RGFIDKIAEN  
VEEVKRKHS A ILASPNPDEK TKEELEELMS DIKKTANKVR SKLKSIEQSI  
EQEEGLNRSS ADLRIRKTQH STLSRKFEV MSEYNATQSD YRERCKGRIQ  
RQLEITGRIT TSEELEDMLE SGNPAIFASG IIMDSSISKQ ALSEIETRHS  
EIIKLENSIR ELHDMFMDMA MLVESQGEMI DRIEYNVEHA VDYVERAVSD  
TKKAV
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[**ACTIVITY**]

Syntaxin 1A (STX1A), a member of the syntaxin family, is a nervous system-specific membrane protein responsible for fusion. Synaptosomal Associated Protein 25kDa (SNAP25) binds to STX1A 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 STX1A and recombinant human SNAP25. 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. The binding activity of recombinant human STX1A and recombinant human SNAP25 was shown in Figure 1, the EC50 for this effect is 0.026ug/mL.

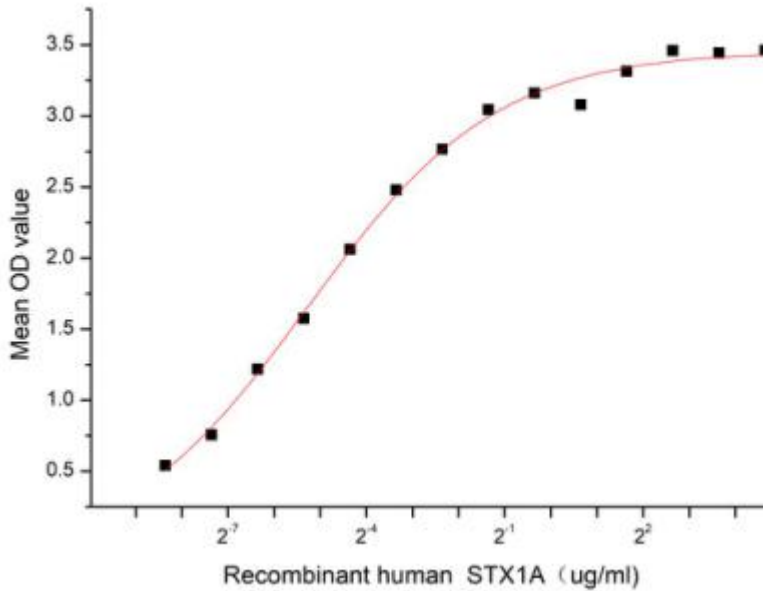


Figure 1. The binding activity of recombinant human STX1A and human SNAP25

[IDENTIFICATION]

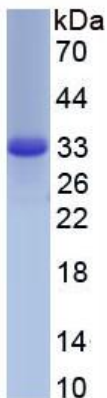


Figure 2. SDS-PAGE

Sample: Active recombinant STX1A, 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.