

APH120Hu01 100µg
Active Stress Induced Phosphoprotein 1 (STIP1)
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~Lys169

Tags: N-terminal His-tag

Purity: >90%

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

Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 5%Trehalose .

Original Concentration: 200µg/mL

Applications: Activity Assays.

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

Predicted isoelectric point: 7.7

Predicted Molecular Mass: 23.2kDa

Accurate Molecular Mass: 23kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) 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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MEQVNELKEK GNKALSVGNI DDALQCYSEA IKLDPHNHVL YSNRSAAYAK  
KGDYQKAYED GCKTVDLKPD WGKGYSRKA ALEFLNRFE AKRTYEEGLK  
HEANNPQLKE GLQNMEARLA ERKFMNPFNM PNLYQKLESD PRTRTLLSDP  
TYRELIEQLR NKPSDLGTK
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[ACTIVITY]

Stress Induced Phosphoprotein 1 (STIP1), also known as Hsp70/Hsp90 organizing protein (HOP), is a versatile co-chaperone that bridges Hsp70 and Hsp90 to facilitate proper folding and maturation of client proteins. It plays pivotal roles in stress response, neuronal function, and cancer progression by regulating protein quality control systems. STIP1 is overexpressed in various malignancies and participates in extracellular signaling via interactions with prion proteins. STIP1 binds to the cellular Prion Protein (PRNP) through direct physical interaction, modulating PRNP's neuroprotective functions and potentially influencing prion disease pathogenesis. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human STIP1 and recombinant human PRNP. Briefly, STIP1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to PRNP-coated microtiter wells and incubated for 1h at 37 °C. Wells were washed with PBST and incubated for 1h with anti-STIP1 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 STIP1 and recombinant human PRNP was shown in Figure 1, the EC₅₀ for this

effect is 0.79 μ g/mL.

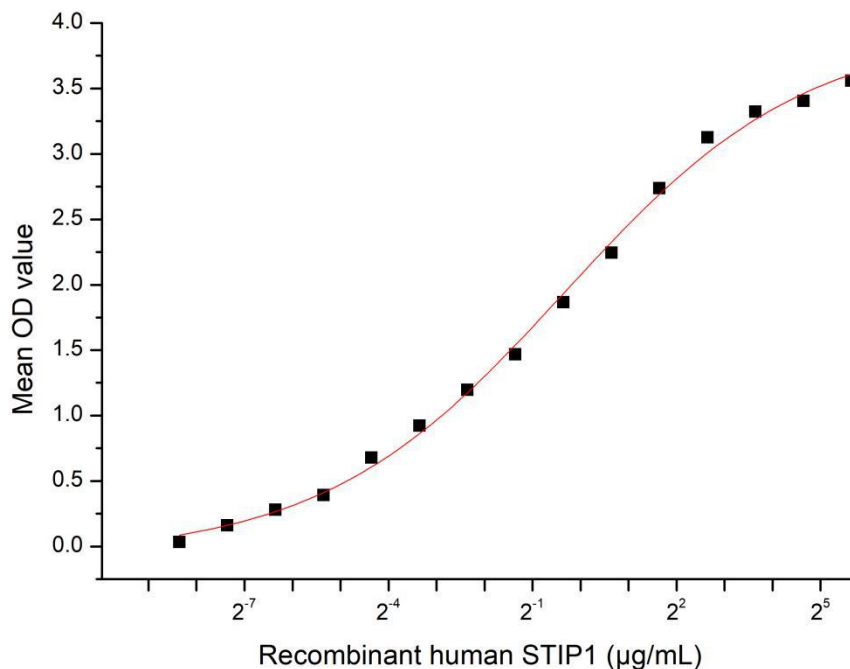


Figure 1. The binding activity of recombinant human STIP1 and recombinant human PRNP

[IDENTIFICATION]

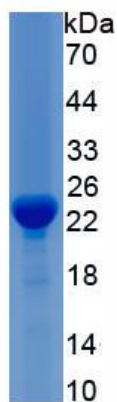


Figure 2. SDS-PAGE

Sample: Active recombinant STIP1, 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.