

APD317Hu01 100µg
Active Glycogen Synthase Kinase 3 Beta (GSK3b)
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: Lys122~Thr375

Tags: N-terminal His-tag

Purity: >95%

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

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

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: 7.7

Predicted Molecular Mass: 32.6kDa

Accurate Molecular Mass: 33kDa 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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KKDEVYLNL VLDYVPETVY RVARHYSRAK
QTLPIVIYVKL YMYQLFRSLA YIHSFGICHR DIKPQNLLLD PDTAVLKLCD
FGSAKQLVRG EPNVSYICSR YYRAPELIFG ATDYTSSIDV WSAGCVLAEL
LLGQPIFPGD SGVDQLVEII KVLGTPREQ IREMNPNYTE FKFPQIKAHP
WTKVFRPRTP PEAIALCSRL LEYTPARLT PLEACAHFFF DELRDPNVKL
PNGRDTPALF NFFTQELSSN PPLAT
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[**ACTIVITY**]

Glycogen synthase kinase 3 β (GSK3 β) is a multifunctional protein kinase that targets Ser/Thr residues with a priming phosphorylation at the fourth amino acid on the C-terminal side. GSK3 β is ubiquitously expressed in all types of cells and tissues and is particularly abundant in the brain. GSK3 β regulates many cellular functions, including cell proliferation, cell survival, gene expression, cellular architecture, neural development and plasticity etc. Besides, Adenomatosis Polyposis Coli Protein (APC) can bind to GSK3 β to form complexes with specific functions. This complex plays a central role in the Wnt signaling pathway, which is involved in regulating the stability of β -catenin, thus a functional ELISA assay was conducted to detect the interaction of recombinant human GSK3b and recombinant mouse APC. Briefly, GSK3b was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to APC-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-GSK3b 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 450/630 nm immediately. The binding activity of recombinant human GSK3b and recombinant mouse APC was shown in Figure 1, the EC50 for this effect is 0.34 ug/mL.

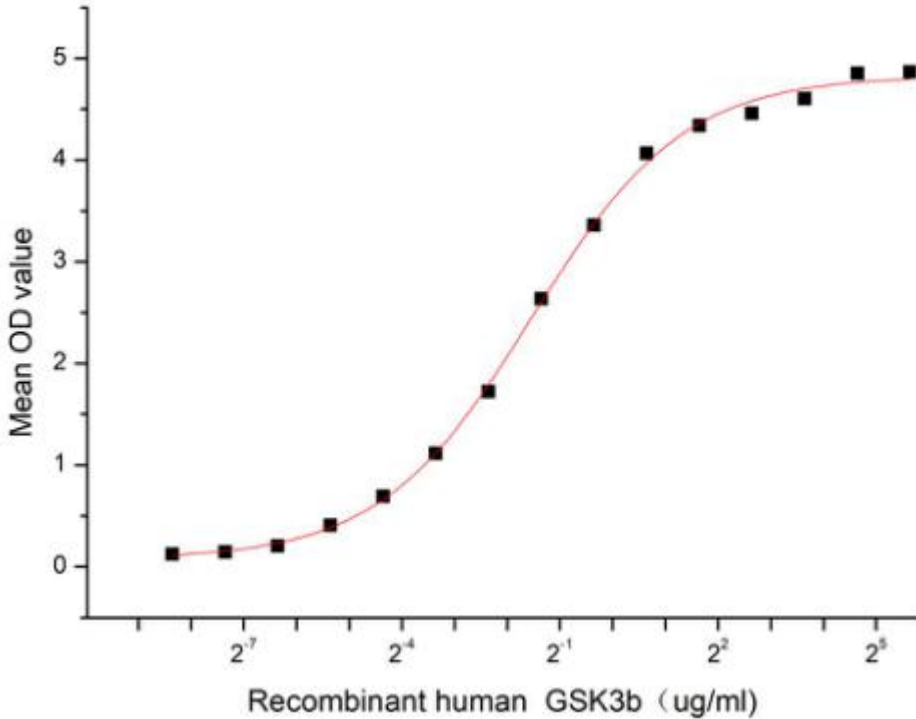


Figure 1. The binding activity of recombinant human GSK3b and recombinant mouse APC

[IDENTIFICATION]

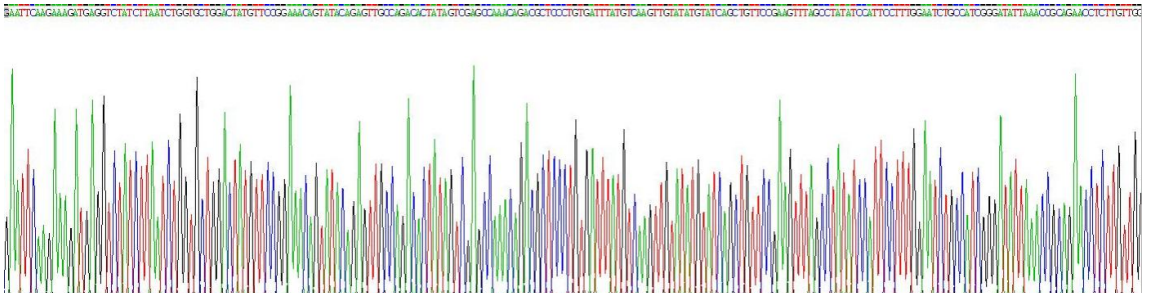


Figure 2. Gene Sequencing (extract)

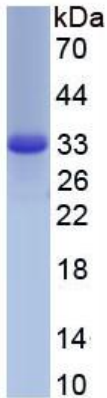


Figure 3. SDS-PAGE

Sample: Active recombinant GSK3b, 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.