

APB090Hu01 500µg
Active Glutathione S Transferase Pi (GSTp)
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~Gln210

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 0.01% skl and 5% trehalose.

Applications: Cell culture; Activity Assays; In vivo assays.

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

Predicted isoelectric point: 6.2

Predicted Molecular Mass: 24.6kDa

Accurate Molecular Mass: 25kDa 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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MPPYTVVYFP VRGRCAALRM LLADQGQSWK EEVTVETWQ EGSLKASCLY
GQLPKFQDGD LTLYQSNTIL RHLGRTLGLY GKDQQEAALV DMVNDGVEDL
RCKYISLIYT NYEAGKDDYV KALPGQLKPF ETLLSQNQGG KTFIVGDQIS
FADYNLLDLL LIHEVLAPGC LDAFPLLSAY VGRLSARPKL KAFLASPEYV
NLPINGNGKQ
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[ACTIVITY]

GSTp (Glutathione S-transferase P) is an enzyme that plays an important role in detoxification by catalyzing the conjugation of many hydrophobic and electrophilic compounds with reduced glutathione. GSTP1 is identified as a CDK5 (Cyclin dependent kinase-5) regulatory protein, and is thought to regulates negatively CDK5 activity via p25/p35 translocation. Thus a binding ELISA assay was conducted to detect the interaction of recombinant human GSTp and recombinant human CDK5. Briefly, GSTp were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100ul were then transferred to CDK5-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1 h with anti-GSTp pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µL stop solution to the wells and read at 450 nm immediately. The binding activity of of GSTp and CDK5 was shown in Figure 1, and this effect was in a dose dependent manner.

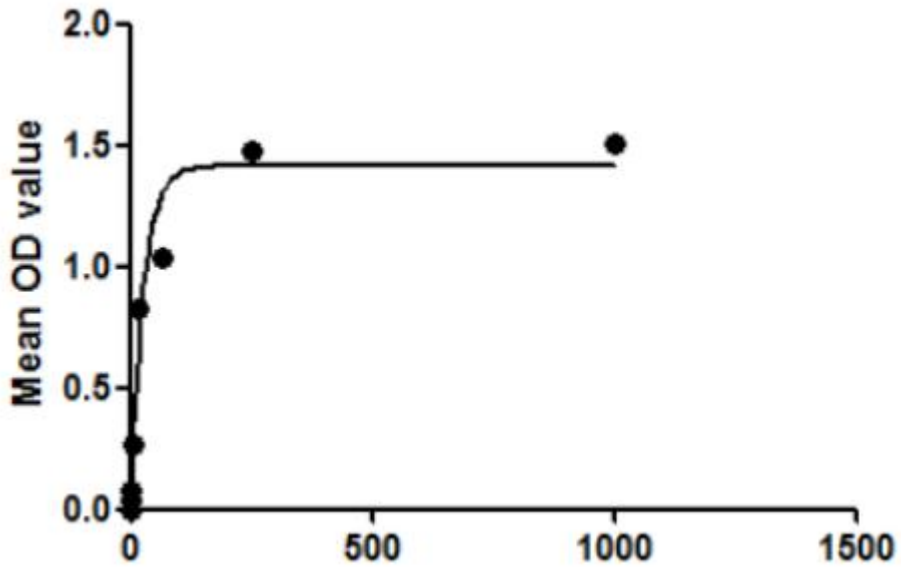


Figure 1. The binding activity of GSTp with CDK5

[IDENTIFICATION]

GSATCGTCCCGCCCTACGCGTGCATTTCCAGTTCGAGGTCCTGCGCCCGCCCGCCGAGCTCTCTGGTCTGGCCCGAGCTGGAGGAGGGTGGCTGGAGGCGGGGAGGGCTGCTGAAAGCTCTCCCTGAGCGGGGCTCCCGAGTTCAGGGCCGAGCTCCCTCTGACGCTCATTCATCTCTGGTACCTGGGCGCCCTTGGCTCTATGG

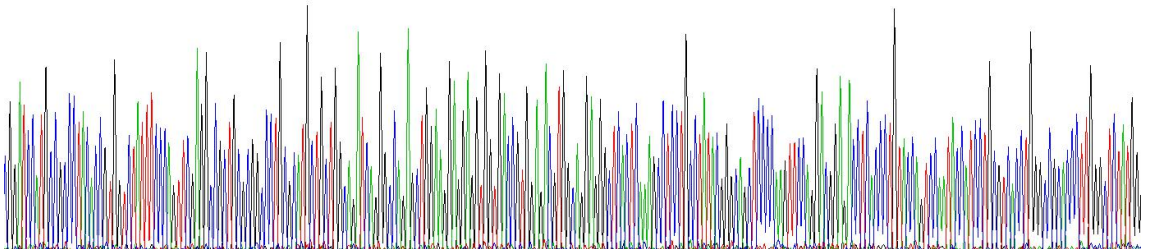


Figure 2. Gene Sequencing (extract)

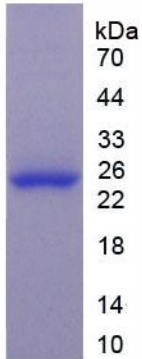


Figure 3. SDS-PAGE

Sample: Active recombinant GSTp, 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.