

APB090Hu01 100µg
Active Glutathione S Transferase Pi (GSTp)
Organism Species: Homo sapiens (Human)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1th Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Met1~Gln210

Tags: N-terminal His-tag

Purity: >95%

Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl 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]

```
MPPYTVVYFP VRGRCAALRM LLADQGQSWK EEVVTVETWQ EGSLKASCLY
GQLPKFQDGD LTLYQSNTIL RHLGRTLGLY GKDQQAALV DMVNDGVEDL
RCKYISLIYT NYEAGKDDYV KALPGQLKPF ETLLSQNQQG KTFIVGDQIS
FADYNLLDLL LIHEVLAPGC LDAFPLLSAY VGRLSARPKL KAFLASPEYV
NLPINGNGKQ
```

[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 1h 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 50µL stop solution to the wells and read at 450nm immediately. The binding activity of of GSTp and CDK5 was shown in Figure 1, and this effect was in a dose dependent manner.

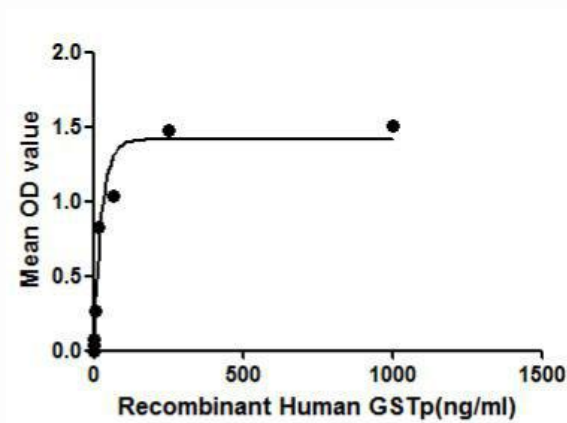


Figure 1. The binding activity of GSTp with CDK5.

[IDENTIFICATION]

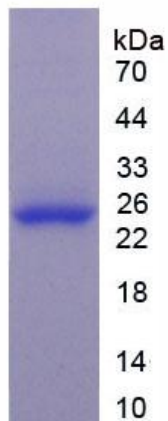


Figure 2. SDS-PAGE

Sample: Active recombinant GSTp, Human

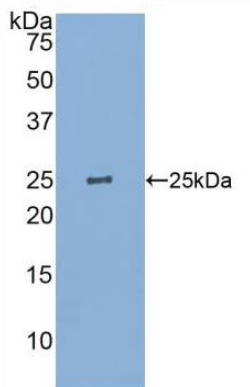


Figure 3. Western Blot

Sample: Recombinant GSTp, Human;

Antibody: Rabbit Anti-Human GSTp Ab (PAB090Hu01)