



APB090Ra01 200µg

Active Glutathione S Transferase Pi (GSTp)

Organism Species: *Rattus norvegicus* (Rat)

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: >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: 750µg/mL

Applications: Activity Assays.

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

Predicted isoelectric point: 7.4

Predicted Molecular Mass: 24.7kDa

Accurate Molecular Mass: 27kDa 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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MPPYTIVYFP VRGRCEATRM LLADQQGSWK EEVVTIDVWL QGSLKSTCLY
GQLPKFEDGD LTLYQSNAIL RHLGRSLGLY GKDQKEAALV DMVNDGVEDL
RCKYGTLIYT NYENGKDDYV KALPGHLKPF ETLLSQNQGG KAFIVGNQIS
FADYNLLDLL LVHQVLAPGC LDNFPLLSAY VARLSARPKI KAFLSSPDHL
NRPINGNGKQ
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[ACTIVITY]

Recombinant Glutathione S Transferase Pi (GSTp) is a key enzyme in the body. It conjugates glutathione with electrophilic substances, playing a vital role in detoxification and antioxidant defense. GSTp is involved in protecting cells from harmful substances and oxidative stress by binding with PRDX6. Thus a functional ELISA assay was conducted to detect the interaction of recombinant rat GSTp and recombinant rat PRDX6. Briefly, GSTp was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to PRDX6-coated microtiter wells and incubated for 1h 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 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 µL stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant rat GSTp and recombinant rat PRDX6 was shown in Figure 1, the EC50 for this effect is 0.008ug/mL.

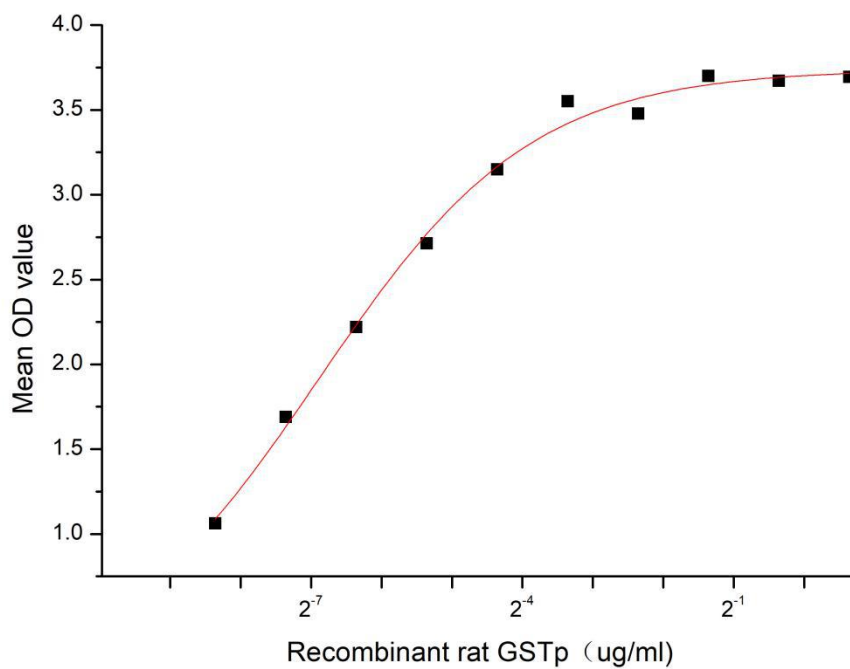


Figure 1. The binding activity of recombinant rat GSTp and recombinant rat PRDX6

[IDENTIFICATION]

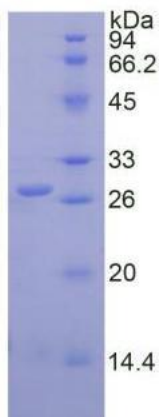


Figure 2. SDS-PAGE

Sample: Active recombinant GSTp, Rat

[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.