

Active Glutathione S Transferase Pi (GSTp) Instruction Manual

SBPB060Ra01

Rattus norvegicus (Rat)

Buffer Formulation

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

Traits

Freeze-dried powder

Purity

> 97%

Isoelectric Point

7.1

Applications

Cell culture; Activity Assays.

ACTIVITY TEST**Calculation**

$$\text{GSTP1 specific activity} = \frac{\Delta OD_{340}/\text{min}}{\epsilon_{mM}} \quad / \text{ amount of protein}$$

$$\text{Where: } \Delta OD_{340}/\text{min} = \frac{A_{340}(\text{final read}) - A_{340}(\text{initial read})}{\text{reaction time}(\text{min})}$$

$$\epsilon \text{ mM} = 9.6$$

The specific activity of recombinant rat GSTP1 is 4.025U/mg.

Glutathione S-transferase P (GSTP1) is a member of Glutathione S-transferases (GSTs) family which play an important role in detoxification by catalyzing the conjugation of many hydrophobic and electrophilic compounds with reduced glutathione. GSTP1 catalyze the endogenous glutathione conjugation 1-Chloro-2,4-dinitrobenzene (CDNB), which can increase in the absorbance at 340nm. The reaction was performed in adding 10 μ L 200mM glutathione (reduced) and 10 μ L 100mM CDNB in 980 μ L 100mM NaH₂PO₄ (pH7.0), rapidly mixed. Then add 50 μ L mixed substrates to 50 μ L recombinant rat GSTP1, mix gently, read the absorbance at 340nm for 5min. One unit activity was defined as 1 μ mole of CDNB conjugate per minute per 1 mg GSTP1

USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

STABILITY

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.

Image

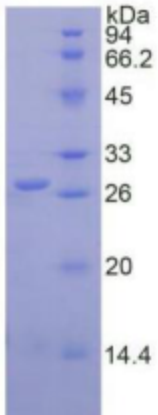


Figure. SDS-PAGE

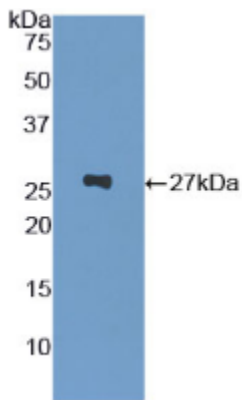


Figure. Western Blot

[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.