

AR09284PU-L

Schistosoma GST-Tag (1-224, His-tag) - Purified

Alternate names:

GST26-Tag, Glutathione S-transferase Tag

Quantity:

0.5 mg

Concentration:

1.0 mg/ml (determined by Bradford assay)

Background:

Glutathione S-transferase (GST) represents a major group of detoxification enzymes. This enzyme acts by catalyzing the reaction of glutathione with an acceptor molecule to form an S-substituted glutathione (S=sulfur). The reactions utilizing glutathione contribute the transformation of a wide range of compounds, including carcinogens, therapeutic drugs, and products of oxidative stress. As well as its enzymatic activities, GST may also bind toxins and function as transport protein. Because of this, an early term for GSTs was ligandin. Glutathione S-transferase was originally separated from *Schistosoma japonicum* but currently isolated from recombinant *E.coli* source.

Uniprot ID:

[P08515](#)

NCBI:

[6182](#)

Species:

Schistosoma

Source:

E. coli

Format:

State: Liquid purified protein
Purity: >95% by SDS - PAGE
Buffer System: PBS, pH 7.4, 10% glycerol

Description:

Recombinant GST, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography techniques.

AA Sequence:

MGSSHHHHHH SSGLVPRGSH MSPILGYWKI KGLVQPTRLL LEYLEEKYEE HLYERDEGDK
WRNKKFELGL EFPNLPYYID GDVKLTQSM IIRYIADKHN MLGGCPKERA EISMLEGAVL
DIRYGVSRIA YSKDFETLKV DFLSKLPEML KMFEDRLCHK TYLNGDHVTH PDFMLYDALD
VVLYMDPMCL DAFPKLVCFK KRIEAIQID KYLKSSKYIA WPLQGWQATF GGGDHPPKSD LVPR

Biological Activity: 2.8-3.3 units/mg, defined as the amount of enzyme that conjugate 1.0 umole of 1-chloro-2,4-dinitrobenzene (CDNB) with reduced glutathione per minute at pH 6.5 at 25°C.

Activity Assay

1. Prepare a 1 ml reaction mix into a suitable container: The final concentrations are 97 mM potassium phosphate, 0.97 mM EDTA, 2.5 mM glutathione, reduced, 1.0 mM 1-chloro-2,4-dinitrobenzene (CDNB), 3.2% (v/v) ethanol.
2. Equilibrate to 25°C and monitor at A340nm until the value is constant using a spectrophotometer.
3. Add 50 ul of recombinant GST protein with various concentrations (1ug, 2ug, 5ug) in 950 ul reaction buffer.
4. Mix by inversion and record the increase at A340nm for 5 minutes.

Molecular weight: 28.3 kDa (244 aa), confirmed by MALDI-TOF

Storage: Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -80°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

Pictures: Recombinant Glutathione S-Transferase class-mu 26 kDa isozyme (1-224 aa), His-tagged: 15% SDS-PAGE (3 µg)

