

Active Recombinant *Schistosoma japonicum* GST, His-tagged

Cat. No. GST-112S Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant <i>Schistosoma japonicum</i> GST full length protein contains 244 amino acids(1-224 a.a.) expressed in <i>E.coli</i> , having a molecular mass of 28.3kDa. The GST protein is fused to 20 amino acid His-Tag at N-terminus. The GST protein is purified by proprietary chromatographic techniques.
Species	<i>Schistosoma japonicum</i>
Source	<i>E.coli</i>
ProteinLength	1-224 a.a.
Description	Antioxidant enzyme Glutathione S- Transferase (GST) is thought to do the primary cellular defense mechanism against reactive oxygen species. GST reduces lipid hydroperoxides through its Se-independent glutathione peroxidase activity. The enzyme also detoxifies lipid peroxidation end products such as 4-hydroxynonenal (4-HNE). The soluble GST is a 26 kDa protein which occurs as a dimer in all aerobic organisms. Each monomer has two domains, one that binds GSH and is an α -structure similar to thioredoxin and the other, all helical, that binds the hydrophobic substrate. The GST -fusion protein expression system is a widely used recombinant protein expression system that allows a peptide or a regulatory protein domain to be expressed as a fusion to the C-terminus of <i>Schistosoma japonicum</i> GST. Fusion proteins also possess GST -enzymatic activity and can undergo dimerization similar to in vivo. The fusion protein can be purified via GST -affinity column chromatography. In most cases, the desired peptides or domains are removed from

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GST by applying a specific protease that recognizes and cleaves the linker between the protein domain and GST. The technique has been widely used to generate different kinds of proteins for crystallization, molecular immunology studies, the production of vaccines and studies involving protein-protein and protein-DNA interactions.

Form Sterile Filtered clear solution. GST is supplied in PBS pH 7.4 & 10% glycerol.

Bio-activity 2.8-3.3 units/mg, & is defined as the amount of enzyme that conjugate 1.0 u mole of 1-chloro-2,4-dinitrobenzene (CDNB) with reduced glutathione per minute at pH-6.5 at 25C.

Molecular Mass 28.3 kDa

AA Sequence MGSSHHHHHH SSGLVPRGSH MSPILGYWKI KGLVQPTRL L LEYLEEKYEE
 HLYERDEGDK WRNKKFELGL EFPNLPYYID GDVKLTQSM IIRYIADKHN
 MLGGCPKERA EISMLEGAVL DIRYGVSRIA YSKDFETLKV DFLSKLPEML
 KMFEDRLCHK TYLNGDHVTH PDFMLYDALDVVLYMDPMCL DAFPKLVCFK
 KR IEAIPQID KYLKSSKYIA WPLQGWQATF GGGDHPPKSD LVPR.

Purity Greater than 95% as determined by SDS-PAGE.

Stability Store vial at -20°C to -80°C. When stored at the recommended temperature, this protein is stable for 12 months. Please prevent freeze-thaw cycles.

Full Length Full L.

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