**GST**

**Glutathione S-Transferase**
**Schistosoma japonicum**, recombinant, *E. coli*

**Cat. No. | Amount**
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PR-811 | 10 µg

*For in vitro use only!*

**Shipping:** shipped on dry ice

**Storage Conditions:** store at -80 °C

**Additional Storage Conditions:** avoid freeze/thaw cycles

**Shelf Life:** 12 months

**Molecular Weight:** 27 kDa

**Accession number:** U58012

**Purity:** > 95 % (SDS-PAGE)

**Form:** liquid (Supplied in 20 mM Tris-HCl pH 8.0, 20% glycerol, 100 mM KCl, 0.2 mM EDTA and 1 mM DTT)

**pH:** 8.0

**Applications:**
GST can be used in protein-protein interaction assays and protein-DNA interaction assays.

**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 detoxify lipid peroxidation end products such as 4-hydroxynonenal (4-HNE). The soluble GST is a 27 kDa protein which occurs as a dimer in all aerobic organisms. Each monomer has two domains, one that binds GSH and is an /-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 Schistosoma japonicum 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 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 crystalization, molecular immunology studies, the production of vaccines and studies involving protein-protein and protein-DNA interactions. GST was isolated from an *E. coli* strain that carries the coding sequence for *Schistosoma japonicum* GST under the control of a T7 promoter.

**Activity:**
100 ng are sufficient for a protein-protein interaction assay.

**Selected References:**


Kaelin et al. (1991) The T/E1A-binding domain of the retinoblastoma product can interact selectively with a sequence-specific DNA-binding

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**DATA SHEET**

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