

## Recombinant Glutathione S-Transferase GST

<b>Catalog No.</b>	CSI13873	<b>Quantity:</b>	10 µg
<b>Description:</b>	<p>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).</p> <p>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 <math>\alpha</math>-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 <i>in vivo</i>. 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.</p> <p>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.</p> <p>GST was isolated from an <i>E. coli</i> strain that carries the coding sequence for <i>Schistosoma japonicum</i> GST under the control of a T7 promoter.</p>		
<b>Source:</b>	<i>E. coli</i>		
<b>Molecular Weight:</b>	27 kDa		
<b>Formulation:</b>	Liquid. Supplied in 20 mM Tris-HCl, pH 8.0 + 100 mM KCl + 0.2 mM EDTA + 1 mM DTT and 20% glycerol.		
<b>Purity:</b>	> 95% by SDS-PAGE		
<b>Activity:</b>	100 ng are sufficient for a protein-protein interaction assay.		
<b>Applications:</b>	GST can be used in protein-protein interaction assays and protein-DNA interaction assays.		
<b>Storage &amp; Stability:</b>	Stable for 1 year in working aliquots at -80°C. <b>Avoid repeated freeze-thaw cycles.</b>		

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

