

## Product Specification Sheet

Recombinant Human GST T1-1  
Product Number: GS90  
Aliquot: 100 µg  
Lot Number: gs90.190606  
Storage: -70°C

<b>SPECIFIC ACTIVITY:</b>	1.177 Units/mg as assayed by the spectrophotometric determination of NADPH oxidation coupled to the glutathione peroxidase activity of GST T1-1 on cumene hydroperoxide (1.5mM) in the presence of reduced glutathione (1 mM) in 100 mM NaPO <sub>4</sub> (pH 7.6) at room temperature.
<b>CONCENTRATION:</b>	1.045 mg/mL total protein using the Bicinchoninic Acid protein assay (Reducing-agent Compatible) with BSA as a standard.
<b>STORAGE BUFFER:</b>	50 mM Tris-HCl (pH 7.5), 50 mM NaCl, 1 mM DTT, 1 mM EDTA and 50% glycerol.
<b>STORAGE:</b>	-70°C; <b>AVOID MULTIPLE FREEZE-THAW CYCLES.</b>
<b>PURITY:</b>	≥ 95% as assessed by inspection on a Coomassie® Blue-stained SDS-PAGE gel.
<b>MOLECULAR WEIGHT:</b>	~25 kDa
<b>SOURCE:</b>	Recombinant 6x His-tagged protein expressed in <i>E. coli</i> .
<b>REFERENCES:</b>	Pemble S., et al., <i>Biochem. J.</i> , <b>300 (Pt 1)</b> :271-276 (1994) Hussey, A.J., et al., <i>Biochem. J.</i> <b>273</b> :323-332 (1991)

**Note:** This purified product does not exhibit enzymatic activity for CDNB, the substrate that is most commonly used to assess the glutathione peroxidase activity of soluble GSTs. It is suspected for GST activity analysis using synthetic and natural substrates, low concentrations (high dilutions) of the enzyme may result in lower activity values. In contrast, initial velocities are much higher for more concentrated levels of enzyme but the rate decreases rapidly. Therefore, activity towards GST substrates and these considerations provide guidance when assaying this product under low concentrations. This enzyme does exhibit Glutathione Peroxidase activity toward Cumene Hydroperoxide.