Oxford Biomedical Research
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Product Specification Sheet
Recombinant Human GST T1-1
Product Number: GS90
Aliquot: 100 µg
Lot Number: gs90.131206
Storage: -70°C

SPECIFIC ACTIVITY:	8.8 Units/mg as assayed by the spectrophotometric determination of NADPH oxidation coupled to the glutathione peroxidase activity of GST T1-1 on cumene hydroperoxide (1.5 mM) in the presence of reduced glutathione (1 mM) in 100 mM $NaPO_4$ (pH 7.0) at room temperature.
CONCENTRATION:	1.95 mg/mL total protein using the Bradford protein assay with BSA as a standard.
STORAGE BUFFER:	50 mM Tris-HCl (pH 7.5), 50 mM NaCl, 1 mM DTT, 1 mM EDTA and 50% glycerol.
STORAGE:	–70˚C; **AVOID MULTIPLE FREEZE-THAW CYCLES.**
PURITY:	≥ 95% as assessed by inspection on a Coomassie® Blue-stained SDS-PAGE gel.
MOLECULAR WEIGHT:	~25 kDa
SOURCE:	Recombinant 6x His-tagged protein expressed in *E. coli*.
REFERENCES:	Pemble S., et al., *Biochem. J.*, **300 (Pt 1)**:271-276 (1994)

Note: This purified product exhibits moderate enzymatic activity for Cumene hydroperoxide, the substrate that is most commonly used to assess the glutathione peroxidase activity of soluble GSTs. However, as 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 or when using substrates other than Cumene hydroperoxide.