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Product Specification Sheet

Recombinant Human GST M5-5
Product Number: GS59
Aliquot: 100 µg
Lot Number: gs59.140509
Storage: -70°C

SPECIFIC ACTIVITY:	183.9 Units/mg using spectrophotometric determination of 1-chloro-2,4-dinitrobenzene (CDNB) conjugation with reduced glutathione (1 mM) in 100 mM $NaPO_4$ (pH 6.5) at room temperature.
CONCENTRATION:	3.2 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:	27.4 kDa
SOURCE:	His-tagged recombinant human protein expressed in *E. coli*.
REFERENCES:	Takahashi, Y., et al., *J. Biol. Chem.*, **268**: 8893-8898 (1993). Pearson, W.R., et al., *Am. J. Hum. Genet.*, **53**: 220-233 (1993).

Note: This purified product exhibits HIGH enzymatic activity for CDNB, the synthetic substrate that is most commonly used for GST analyses. However, it has been suspected for GST activity analysis using CDNB as a substrate, 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 (~1 µg/ml) but the rate decreases rapidly. Therefore, activity toward CDNB and these considerations provide guidance when assaying this product under low concentrations or when using substrates other than CDNB.