

Product Specification Sheet

Recombinant Rat GST T1-1
Product Number: GS38
Aliquot: 100 µg
Lot Number: gs38.140111
Storage: -70°C

SPECIFIC ACTIVITY:	86.6 Units/mg using spectrophotometric determination of 1,2-epoxy-3(4-nitrophenoxy)propane (ENPP) conjugation with reduced glutathione (5 mM) in 100 mM NaPO ₄ (pH 6.5) at room temperature.
CONCENTRATION:	1.22 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 Rat protein expressed in <i>E. coli</i> .
REFERENCE:	Gisi, D., et. al. 2001. Dichloromethane mediated in vivo selection and functional characterization of rat glutathione S-transferase theta 1-1 variants. <i>Eur. J. Biochem.</i> , 268 , 4001-4010.

Note: This purified product exhibits high enzymatic activity for ENPP and NBC, synthetic substrates that are most commonly used for Theta class GST analyses. However, as is widely speculated for GST activity analysis using synthetic substrates, low concentrations (high dilutions) of the enzyme results 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 ENPP (and NBC) and these considerations provide guidance when assaying this product under low concentrations or when using substrates other than ENPP.