3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

GST protein, tag-free
recombinant, expressed in *E. coli* cells

Catalog Number **SRP5348**
Storage Temperature –70 °C

Synonym: glutathione *S*-transferase

Product Description

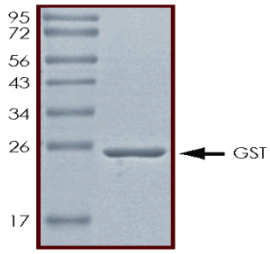
The GST (glutathione *S*-transferase) family of enzymes comprises a long list of cytosolic, mitochondrial, and microsomal proteins that are used to create the so-called GST gene fusion system.[1] These proteins are capable of multiple reactions with a multitude of substrates. The GST-tag is 220 amino acids, which is relatively large compared to other tags like the FLAG® and myc-tags that are quite small. GST can be used to purify and detect proteins of interest. In a GST gene fusion system, an expression vector consists of the gene sequence encoding the protein of interest and GST sequence alongside. After induction, the fusion proteins can be purified using affinity chromatography via its high affinity for glutathione.[1]

Recombinant artificial sequence GST (1-226) was expressed in *E. coli* cells and purified on a glutathione column. The gene accession number is U13850. It is supplied in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~25 kDa

The enzymatic activity of this product has not been determined.

Figure 1.
SDS-PAGE Gel of Typical Lot:
≥70% (SDS-PAGE, densitometry)



Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at –70 °C is recommended. After opening, aliquot into smaller quantities and store at –70 °C. Avoid repeated handling and multiple freeze/thaw cycles.

References

1. Beckett, G.J., and Hayes, J.D., Glutathione S-transferase measurements and liver disease in man. J. Clin. Biochem. Nutr., **2**, 1-24 (1987).

FLAG is a registered trademark of Sigma-Aldrich Co. LLC.

SG,RC,MAM 07/15-1

©2015 Sigma-Aldrich Co. LLC. All rights reserved. SIGMA-ALDRICH is a trademark of Sigma-Aldrich Co. LLC, registered in the US and other countries. Sigma brand products are sold through Sigma-Aldrich, Inc. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see product information on the Sigma-Aldrich website at www.sigmaaldrich.com and/or on the reverse side of the invoice or packing slip.