
Product Data Sheet

Product Name: GST, 218 a.a.

Cat. No.: GP21736

Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Glutathione S-Transferase; GST; Glutathione S-transferase class-mu 28 kDa isozyme; GST 28; EC 2.5.1.18; Sj28GST; Sj28 antigen; Sj26 antigen.		
Amino Acid Sequence	MSPILGYWKI KGLVQPTRLLEYLEEKYEE HLYERDEGDK WRNKKFELGLEFPNLPYYID GDVKLTSQMA IIRYIADKHN MLGGCPKERA EISMLEGAVL DIRYGVSRIA YSKDFETLKV DFLSKLPEML KMFEDRLCHK TYLNGDHVTH PDFMLYDALD VVLYMDPMCL DAFPKLVCFK KRIEAIPOID KYLKSSKYIA WPLQGWQATF GGGDHPPK.		
Formulation	GST protein solution (1mg/ml) containing PBS and 10% glycerol.		

Introduction

Antioxidant enzyme Glutathione S- Transferase (GST) is thought to do the primary cellular defense mechanism against reactive oxygen species. GST reduces lipid hydroperoxides through its Se-independent glutathione peroxidase activity. The enzyme also detoxifies lipid peroxidation end products such as 4-hydroxynonenal (4-HNE). The soluble GST is a 26 kDa protein which occurs as a dimer in all aerobic organisms. Each monomer has two domains, one that binds GSH and is an α -structure similar to thioredoxin and the other, all helical, that binds the hydrophobic substrate. The GST - fusion protein expression system is a widely used recombinant protein expression system that allows a peptide or a regulatory protein domain to be expressed as a fusion to the C-terminus of Schistosoma japonicum GST. Fusion proteins also possess GST - enzymatic activity and can undergo dimerization similar to in vivo. The fusion protein can be purified via GST -affinity column chromatography. In most cases, the desired peptides or domains are removed from GST by applying a specific protease that recognizes and cleaves the linker between the protein domain and GST. The technique has been widely used to generate different kinds of proteins for crystallization, molecular

Caution: Product has not been fully validated for medical applications. For research use only.

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immunology studies, the production of vaccines and studies involving protein-protein and protein-DNA interactions.

Biological Activity

The Specific activity is > 30 units/mg, and is defined as the amount of enzyme that conjugate 1.0 umole of 1-chloro-2,4-dinitrobenzene (CDNB) with reduced glutathione per minute at pH 6.5 at 25C.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

GST Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 218 amino acids (1-218 a.a) and having a molecular mass of 25.4kDa

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