Data Sheet (Cat.No.TMPY-02157)

TargetMol

GST Protein, Schistosoma japonicum, Recombinant

General Information

Synonyms:	GST
Protein Construction:	A DNA sequence encoding the Glutathione S-transferase (P08515) (Met 1-Lys 218), with additional 11 amino acids at the C-terminus, was expressed and purified. Predicted N terminal: Met 1
Species:	Schistosoma japonicum
Expression Host:	Baculovirus Insect Cells
Accession:	P08515
Molecular Weight:	26.9 kDa (predicted); 28 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 50 mM Tris, 100 mM NaCl, 2 mM GSH, pH 8.0.Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

Genetic engineers have used glutathione S-transferase to create the GST gene fusion system. This system is used to purify and detect proteins of interest. In a GST gene fusion system, the GST sequence is incorporated into an expression vector alongside the gene sequence encoding the protein of interest. Induction of protein expression from the vector's promoter results in expression of a fusion protein: the protein of interest fused to the GST protein.

This GST-fusion protein can then be purified from cells via its high affinity for glutathione. GST is commonly used to create fusion proteins. The tag has the size of 22amino acids(roughly 26 KDa), which, compared to other tags like the Myc- or the FLAG-tag, is quite big. However, many commercially-available sources of GST-tagged plasmids include athrombindomain for cleavage of the GST tag during protein purification.

Reference

Douglas KT . et al., 1987, Adv Enzymol Relat Areas Mol Biol. 1987;59:103-67.
Beckett GJ. et al., 1993, Adv Clin Chem. 1993;30:281-380.
Wilce MC. et al., 1994, Biochim Biophys Acta. 1994 Mar 16;1205(1):1-18.
Leaver MJ. et al., 1998, ?Marine Environmental Research. 46?(1-5): 71-4.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481