OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-888-267-4436
Fax: +1-301-340-8606
techsupport@origene.com

OriGene Technologies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info-de@origene.com

AR03011PU-N Schistosoma GST-Tag (1-224) - Purified

Alternate names: GST26-Tag, Glutathione S-transferase Tag

Quantity: 0.1 mg

Concentration: 1.0 mg/ml

Background: Glutathione S-transferase (GST) represents a major group of detoxification enzymes. This enzyme acts by catalyzing the reaction of glutathione with an acceptor molecule to form an S-substituted glutathione (S=sulfur). The reactions utilizing glutathione contribute the transformation of a wide range of compounds, including carcinogens, therapeutic drugs, and products of oxidative stress. As well as its enzymatic activities, GST may also bind toxins and function as transport protein. Because of this, an early term for GSTs was ligandin. Glutathione S-transferase was originally separated from Schistosoma japonicum but currently isolated from recombinant E.coli source.

Uniprot ID: P08515

NCBI: 6182

Species: Schistosoma

Source: E. coli

Format:
State: Liquid purified protein
Purity: ›95% by SDS PAGE
Buffer System: Phosphate Buffered Saline pH 7.4
Endotoxin Level: ‹ 1.0 EU per 1 ug of protein (determined by LAL method)

Description: Recombinant GST was expressed in E.coli and purified by conventional chromatography techniques.

AA Sequence:
MSPILGYWKI KGLVQPTRLL LEYLEEKYEE HLYERDEGDK WRNKKFELGL EFPNLPYYID
GDVKLTQSMA IIRYIADKHN MLGGCPKERA EISMLEGAVL DIRYGVSRIA YSKDFETLKV
DFLSKLPEML KMFEDRLCHK TYLNGDHVTH PDFMLYDALD VVLYMDPMCL DAFPKLVCFK
KRIEAIPQID KYLKSSKYIA WPLQGWQATF GGGDHPPKSD LVPR

Biological Activity: 0.5-2.5 units/mg (please enquire for specific batch value). A unit is defined as the amount of enzyme that conjugate 1.0 u mole of 1-chloro-2,4-dinitrobenzene (CDNB) with reduced glutathione per minute at pH 6.5 at 25°C.

Activity Assay

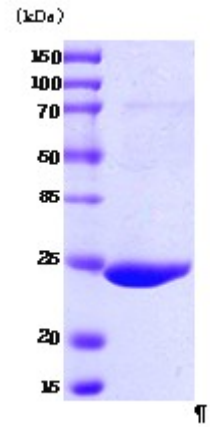
1. Prepare a 1 ml reaction mix into a suitable container: The final concentrations are 97 mM potassium phosphate, 0.97 mM EDTA, 2.5 mM glutathione, reduced, 1.0 mM 1-chloro-2,4-dinitrobenzene (CDNB), 3.2% (v/v) ethanol.
2. Equilibrate to 25°C and monitor at A340nm until the value is constant using a spectrophotometer.
3. Add 50 ul of GST protein with various concentrations (1ug, 2ug, 5ug) in 950 ul reaction buffer.
4. Mix by inversion and record the increase at A340nm for 5 minutes.

Molecular weight: 26 kDa (224 aa)

Storage: Store undiluted at 2-8°C for one month or (in aliquots) at -20°C to -80°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:
Hayes JD., et al. (1995). Crit Rev Biochem Mol Biol. 30(6):445-600.
Bekett GJ., et al. (1987). J. Clin Biochem Nutr. 2, 1-24.
Smith DB., et al. (1988). Mol Biochem Parasitol. 27(2-3):249-56.

Pictures:
Recombinant Glutathione S-Transferase (GST) 1-224 aa, Schistosoma japonicum



15%SDS-PAGE (3ug)