



# Recombinant Protein Technical Manual

## Recombinant Schistosoma Japonicum GST 26 Protein RPES4052

### Product Data:

**Product SKU:** RPES4052

**Size:** 10µg

**Species:** Schistosoma Japonicum

**Expression host:** E. coli

**Uniprot:** P08515

### Protein Information:

**Molecular Mass:** 25.7 kDa

**AP Molecular Mass:** 28 kDa

**Tag:**

**Bio-activity:**

**Purity:** > 95% as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Glutathione S-transferase class-mu 26 kDa isozyme; GST 26; Sj26 antigen; SjGST

## Immunogen Information:

**Sequence:** Met1-Lys218

## Background:

Glutathione S-transferases (GSTs), previously known as ligandins, comprise a family of eukaryotic and prokaryotic phase II metabolic isozymes best known for their ability to catalyze the conjugation of the reduced form of glutathione (GSH) to xenobiotic substrates for the purpose of detoxification. The GST family consists of three superfamilies: the cytosolic, mitochondrial, and microsomal (MAPEG) proteins. GST isoenzymes appear to play a central role in the parasite detoxification system. Other functions are also suspected including a role in increasing the solubility of haematin in the parasite gut. The activity of GSTs is dependent upon a steady supply of GSH from the synthetic enzymes gamma-glutamylcysteine synthetase and glutathione synthetase, as well as the action of specific transporters to remove conjugates of GSH from the cell. The primary role of GSTs is to detoxify xenobiotics by catalyzing the nucleophilic attack by GSH on electrophilic carbon, sulfur, or nitrogen atoms of said nonpolar xenobiotic substrates, thereby preventing their interaction with crucial cellular proteins and nucleic acids.