

Recombinant Rat GSTp1 Protein (His Tag)

Catalog Number: PDER100174

Note: Centrifuge before opening to ensure complete recovery of vial contents.

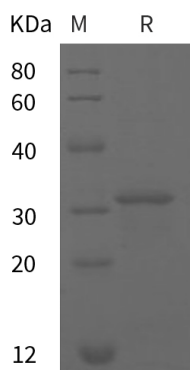
Description

Species	Rat
Source	E.coli-derived Rat GSTp1 protein Pro2-Gln210, with an N-terminal His
Calculated MW	22.9 kDa
Observed MW	31 kDa
Accession	P04906
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°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 in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Rat GSTp1 proteins, 2 µg/lane of Recombinant Rat GSTp1 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 31 kDa.

Background

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Glutathione S-Transferases (GSTs) are members of the phase II detoxification enzyme family that conjugate glutathione to various electrophilic compounds, including metabolites generated by oxidative processes in the body, environmental toxins or carcinogens, and anti-cancer drugs. GSTP1 is a cytosolic protein that belongs to pi class of the GST superfamily. It is crystallized as a homodimer, but also exists in solution as an equilibrium mixture of monomer and dimer, depending on the protein concentration. Four genetic variants of GSTP1 with different enzymatic activities have been identified, which indicates the particular allelic form expressed in tissues could contribute to variation in catalytic efficiency and biological functions. Genetic polymorphisms and expression patterns of GSTP1 have been associated with a variety of effects on human cancer, anti-cancer drug resistance, and asthma. In addition to its role as a drug-metabolizing enzyme, GSTP1 has ligand binding properties and regulates kinase signaling pathways through protein-protein interactions.

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