Recombinant Rat GPT1/GPT Protein (His Tag)

Catalog Number: PKSR030415

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

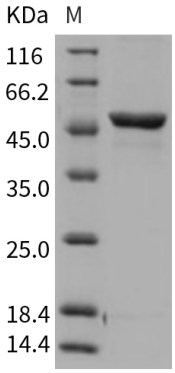
Description

Species	Rat
Source	Baculovirus-Insect Cells-derived Rat GPT1/GPT protein Met 1-Ser 496, with an C-terminal His
Calculated MW	55.0 kDa
Observed MW	48 kDa
Accession	NP_112301.1
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg 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 sterile 50mM Tris, 100mM NaCl, pH 8.0, 10% glycerol, 0.5mM TCEP Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Alanine aminotransferase (ALT), also known as glutamate pyruvate transaminase (GPT), is a pyridoxal enzyme which belongs to the class-I pyridoxal-phosphate-dependent aminotransferase family, Alanine aminotransferase subfamily. Gpt / Gpt1 / ALT catalyses the reversible interconversion of L-alanine and 2-oxoglutalate to pyruvate and L-glutamate, and plays a key role in the intermediary metabolism of glucose and amino acids. Gpt / Gpt1 / ALT is expressed in Live r, kidney, heart, and skeletal muscles and it expresses at moderate levels in the adipose tissue. As a key enzyme for gluconeogenesis, Gpt is a widely-used serum marker for liver injury. Two ALT isoenzymes have been identified, ALT1 and ALT2 (GPT1 and GPT2), which are encoded by separate genes and share significant sequence homology, but differ in their expression patterns. GPT1/GPT is widely distributed and mainly expressed in intestine, liver, fat tissues, colon, muscle, and heart, in the order of high to low expression level. Serum activity levels of this enzyme are routinely used as a biomarker of liver injury caused by drug toxicity, infection, alcohol, and steatosis.

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