Recombinant Protein Technical Manual

Recombinant Rat GPT1/GPT Protein (His Tag)

RPES0281

Product Data:

Product SKU: RPES0281

Size: 10µg

Species: Rat

Expression host: Baculovirus-Insect Cells

Uniprot: NP_112301.1

Protein Information:

Molecular Mass: 55 kDa

AP Molecular Mass: 48 kDa

Tag: C-His

Bio-activity:

Purity: > 95 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method

Storage: 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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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

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

Application:

Synonyms: Gpt1;Gpt;ALT1

Immunogen Information:

Sequence: Met 1-Ser 496

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 Liver, 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.