



# Recombinant Protein Technical Manual

## Recombinant Rat GPT2 Protein (His Tag)

RPES1636

### Product Data:

**Product SKU:** RPES1636

**Size:** 20µg

**Species:** Rat

**Expression host:** Baculovirus-Insect Cells

**Uniprot:** NP\_001012057.1

### 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°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

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

**Application:**

**Synonyms:** ALT2;Cc2-5;Gpt2

## Immunogen Information:

**Sequence:** Met 1-Ser 522

## Background:

Alanine aminotransferase (ALT), also known as glutamate pyruvate transaminase (Gpt), is a pyridoxal enzyme which catalyses the reversible interconversion of L-alanine and 2-oxoglutarate to pyruvate and L-glutamate, and plays a key role in the intermediary metabolism of glucose and amino acids. 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 is widely distributed and mainly expressed in intestine, liver, fat tissues, colon, muscle, and heart, in the order of high to low expression level, whereas Gpt2 expression is more restricted, mainly in liver, muscle, brain, and white adipose tissue. It has been reported that hepatic ALT2 protein is approximately four times higher in male rats than in female rats.