

Active Native Human GPT

Cat. No. GPT-1840H Lot. No. (See product label)

SPECIFICATION

Product Overview	Native Human GPT was prepared from Human Liver. CAS# 9000-86-6.
Species	Human
Source	Human Liver
Description	This gene encodes cytosolic alanine aminotransaminase 1 (ALT1); also known as glutamate-pyruvate transaminase 1. This enzyme catalyzes the reversible transamination between alanine and 2-oxoglutarate to generate pyruvate and glutamate and, therefore, plays a key role in the intermediary metabolism of glucose and amino acids. Serum activity levels of this enzyme are routinely used as a biomarker of liver injury caused by drug toxicity, infection, alcohol, and steatosis. A related gene on chromosome 16 encodes a putative mitochondrial alanine aminotransaminase.
Form	Lyophilized. Homodimer.
Bio-activity	>5 U/mg (Dimension® Clinical Chemistry System)
Molecular Mass	57,903.6 based on the sequence
Purity	≥0.5 mg protein/mg (Coomassie)
Unit Definition	One unit will catalyze the transamination of one micromole of L-alanine to alpha-ketoglutarate, forming L-glutamate and pyruvate per minute at 37°C and pH 7.8.

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Measured at 340 nm as one equimolar amount of NAD produced by a coupled reaction.

Applications Diagnostic Controls, Calibrators Standards; Clinical Chemistry; Testing/Assay Validation; Life Science; Manufacturing

Storage -20°C

GENE INFORMATION

Gene Name GPT glutamic-pyruvate transaminase (alanine aminotransferase) [Homo sapiens]

Official Symbol GPT

Synonyms GPT; glutamic-pyruvate transaminase (alanine aminotransferase); alanine aminotransferase 1; ALT1; GPT1; GPT 1; glutamic-alanine transaminase 1; glutamic--alanine transaminase 1; glutamic--pyruvic transaminase 1; glutamate pyruvate transaminase 1; AAT1;

Gene ID 2875

mRNA Refseq NM_005309

Protein Refseq NP_005300

MIM 138200

UniProt ID P24298

Chromosome Location 8q24.2-qter

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Pathway

Alanine and aspartate metabolism, organism-specific biosystem; Alanine, aspartate and glutamate metabolism, organism-specific biosystem; Alanine, aspartate and glutamate metabolism, conserved biosystem; Amino acid synthesis and interconversion (transamination), organism-specific biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of amino acids and derivatives, organism-specific biosystem;

Function

1-aminocyclopropane-1-carboxylate synthase activity; L-alanine:2-oxoglutarate aminotransferase activity; L-alanine:2-oxoglutarate aminotransferase activity; pyridoxal phosphate binding; transaminase activity;

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