

Recombinant Human GPT, His-tagged

Cat. No. GPT-26390TH Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant full-length Human Alanine Transaminase with a N terminal His tag. 516 amino acids with a predicted MWt 56.8 kDa including tag.
Species	Human
Source	E.coli
ProteinLength	496 amino acids
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.
Conjugation	HIS
Molecular Weight	56.800kDa inclusive of tags
Tissue specificity	Liver, kidney, heart, and skeletal muscles. Expressed at moderate levels in the adipose tissue.

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Form	Liquid
Purity	>90% by SDS-PAGE
Storage buffer	pH: 8.00 Constituents: 0.32% Tris HCl, 20% Glycerol, 0.03% DTT
Storage	Store at +4°C short term (1-2 weeks). Aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Sequences of amino acids	MGSSHHHHHSSGLVPRGSHMASSTGDRSQAVRHGLRAKV LTLDGMNPRVRRVE YAVRGPIVQRALELEQELRQGVKK PFTEVIRANIGDAQAMGQRPITFLRQVLALCVN PDLLSSP NFPDDAKKRAERILQACGGHSLGAYSVSSGIQLIREDV ARYIERRDGGIP ADPNNVFLSTGASDAIVTVLKLLVAGEG HTRTGVLIPQYPLYSATLAELGAVQVDY YLDEERAW ALDVAELHRALGQARDHCRPRALCVINPGNPTGQVQTREC IEAVIRFA FEERLFLLADEVYQDNVYAAGSQFHSFKKV LMEMGPPYAGQQELASFHSTSKGYM GECGFRGGYVEVVM DAAVQQQMLKLSVRLCPPVPGQALLDLVSPAPTDP S FAQFQAEKQAVLAELAAKAKLTEQVFNEAPGISCNPVQG AMYSFPRVQLPPRAVER AQELGLAPDMFFCLRLLEETG ICVVPGSGFGQREGTYHFRMTILPPEKLRLLEKL SRFH AKFTLEYS
Sequence Similarities	Belongs to the class-I pyridoxal-phosphate-dependent aminotransferase family. Alanine aminotransferase subfamily.

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;

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Gene ID	2875
mRNA Refseq	NM_005309
Protein Refseq	NP_005300
MIM	138200
Uniprot ID	P24298
Chromosome Location	8q24.2-qter
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;
Function	1-aminocyclopropane-1-carboxylate synthase activity; L-alanine:2-oxoglutarate aminotransferase activity; L-alanine:2-oxoglutarate aminotransferase activity; pyridoxal phosphate binding; transaminase activity;