

Active Recombinant Human GPT protein, His-tagged

Cat. No. GPT-59H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human GPT protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.
Species	Human
Source	E.coli
ProteinLength	1-496 aa
Description	GPT, also known as alanine aminotransferases (ALT1), catalyzes the reversible transamination between alanine and 2-oxoglutarate to form pyruvate and glutamate. This protein plays a key role in the intermediary metabolism of glucose and amino acids. It is widely used as an index of liver integrity or hepatocellular damage in clinical settings.
Form	Liquid. In 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 2mM DTT
Bio-activity	Specific activity is >100units/mg, and is defined as the amount of enzyme that cleaves 1umole of L-Alanine to L-Glutamate per minute at pH 7.5 at 37C
Molecular Mass	56.8 kDa (516aa), confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MASSTGDRSQ AVRHGLRAKV LTLDGMNPRV RRVEYAVRGP IVQRALELEQ ELRQGVKKPF TEVIRANIGDAQAMGQRPIT FLRQVLALCV NPDLLSSPNF PDDAKKRAER ILQACGGHSL GAYSVSSGIQ

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LIREDVARYI ERRDGGIPAD PNNVFLSTGASDAIVTVLKL LVAGEGHTRT
 GVLIPQYP LYSATLAELG AVQVDYYLDE ERAWALDVAE LHRALGQARD
 HCRPRALCVI NPGNPTGQVQTRECIEAVIR FAFEERLFL ADEVYQDNVY
 AAGSQFHSFK KVLMMGPPY AGQQELASFH STSKGYMGEC GFRGGYVEVW
 NMDAAVQQQMLKLMSVRLCP PVPQGALLDL VVSPAPTDP SFAQFQAEKQ
 AVLAELAAGA KLTEQVFNEA PGISCNPVQG AMYSFPRVQL
 PPRAVERAQELGLAPDMFFC LRLLEETGIC VVPGSGFGQR EGTYHFRMTI
 LPPLEKLRL LKLSRFHAK FTLEYS

Purity >90% by SDS - PAGE

Storage Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.

Concentration 0.5 mg/ml (determined by Bradford assay)

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

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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; 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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