## **PRODUCT INFORMATION**

Expression system E.coli

**Domain** 1-496aa

**UniProt No.** P24298

NCBI Accession No. NP\_005300.1

Alternative Names alanine aminotransferase 1, AAT1, ALT1, GPT1

## **PRODUCT SPECIFICATION**

**Molecular Weight** 56.8 kDa (516aa) confirmed by MALDI-TOF

## **Concentration** 0.5mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 2mM DTT

**Purity** > 95% by SDS-PAGE

## **Biological Activity**

Specific activity is > 100unit/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

**Tag** His-Tag

**Application** SDS-PAGE, Enzyme Activity

## **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

# BACKGROUND

## 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. Recombinant human GPT protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography.

#### Amino acid Sequence

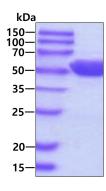
<MGSSHHHHHH SSGLVPRGSH> MASSTGDRSQ AVRHGLRAKV LTLDGMNPRV RRVEYAVRGP IVQRALELEQ ELRQGVKKPF TEVIRANIGD AQAMGQRPIT FLRQVLALCV NPDLLSSPNF PDDAKKRAER ILQACGGHSL GAYSVSSGIQ LIREDVARYI ERRDGGIPAD PNNVFLSTGA SDAIVTVLKL LVAGEGHTRT GVLIPIPQYP LYSATLAELG AVQVDYYLDE ERAWALDVAE LHRALGQARD HCRPRALCVI NPGNPTGQVQ TRECIEAVIR FAFEERLFLL ADEVYQDNVY AAGSQFHSFK KVLMEMGPPY AGQQELASFH STSKGYMGEC GFRGGYVEVV NMDAAVQQQM LKLMSVRLCP PVPGQALLDL VVSPPAPTDP SFAQFQAEKQ AVLAELAAKA KLTEQVFNEA PGISCNPVQG AMYSFPRVQL PPRAVERAQE LGLAPDMFFC LRLLEETGIC VVPGSGFGQR EGTYHFRMTI LPPLEKLRLL LEKLSRFHAK FTLEYS

#### **General References**

Sohocki M.M. et al. (1997) Genomics 40: 247-252. Matthews C.C. et al. (2003) Brain Res. 978: 59-64.

## DATA

#### **SDS-PAGE**



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.