Recombinant rat ALT1/GPT1 protein

Catalog Number: ATGP3161

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-496aa

UniProt No.
P25409

NCBI Accession No.
NP_112301

Alternative Names
Alanine aminotransferase 1

PRODUCT SPECIFICATION

Molecular Weight
57.5 kDa (519aa)

Concentration
1mg/ml (determined by absorbance at 280nm)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity
> 90% by SDS-PAGE

Biological Activity
Specific activity is > 60unit/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
Enzyme Activity,SDS-PAGE

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 aminotransferase 1, is a pyridoxal enzyme which catalyses the reversible interconversion of L-alanine and 2-oxoglutalate to pyruvate and L-glutamate. The Gpt is widely distributed in various tissues from animals and even in some kind of plants. It is suggested that c-ALT is associated to the

utilization of pyruvate in glycolysis and m-ALT is involved in the conversion of alanine to pyruvate for gluconeogenesis. Recombinant rat Gpt, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques

Amino acid Sequence

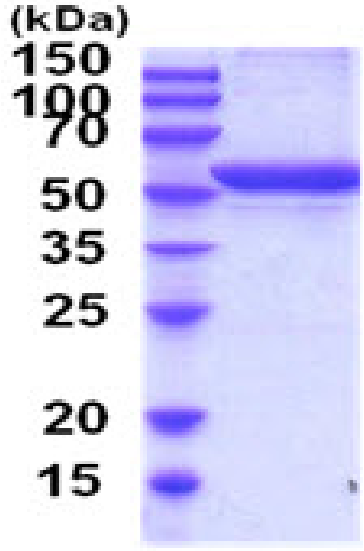
MGSSHHHHHH SSGLVPRGSH MGSMASRVND QSQASRNGLK GKVLTLDTMN PCVRRVEYAV RGPIVQRALE LEQELRQGVK KPFTEVIRAN IGDAQAMGQR PITFFRQVLA LCVYPNLLSS PDFPEDAKRR AERILQACGG HSLGAYSISS GIQPIREDVA QYIERRDGGI PADPNNIFLS TGASDAIVTM LKLLVSGEGR ARTGVLIPIP QYPLYSAALA ELDAVQVDYY LDEERAWALD IAELRRALCQ ARDRCCPRVL CVINPGNPTG QVQTRECIEA VIRFAFKEGL FLMADEVYQD NVYAEGSQFH SFKKVLMEMG PPYSTQQELA SFHSVSKGYM GECGFRGGYV EVVNMDAEVQ KQMGKLMSVR LCPPVPGQAL MDMVVSPPTP SEPSFKQFQA ERQEVLAELA AKAKLTEQVF NEAPGIRCNP VQGAMYSFPQ VQLPLKAVQR AQELGLAPDM FFCLCLLEET GICVVPGSGF GQQEGTYHFR MTILPPMEKL RLLLEKLSHF HAKFTHEYS

General References

Yang RZ., et al. (2009) Hepatology. 49(2):598-607.
Ishiguro M., et al. (1991) Biochemistry. 30(43):10451-7.

DATA

SDS-PAGE



15% SDS-PAGE (3ug)

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