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# Recombinant human Glutamine synthetase/GLUL protein

Catalog Number: ATGP3404

#### PRODUCT INFORMATION

### **Expression system**

E.coli

#### **Domain**

1-373aa

#### UniProt No.

P15104

#### **NCBI Accession No.**

NP 001028216.1

#### **Alternative Names**

Glutamine synthase, Glutamate-ammonia ligase, GLNS, Glutamate-ammonia ligase, GS, Palmitoyltransferase GLUL

## **PRODUCT SPECIFICATION**

#### **Molecular Weight**

42 kDa (373aa) confirmed by MALDI-TOF

#### Concentration

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

#### **Formulation**

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 1mM DTT, 0.1mM PMSF

#### **Purity**

> 85% by SDS-PAGE

## **Biological Activity**

Specific activity is > 2.000pmol/min/ug, and is defined as the amount of enzyme that convert L-glutamate to L-glutamine per miunte at pH 7.5 at 37C in coupled system with PK/LDH.

#### Tag

Non-Tagged

## **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**

GLUL also known as Glutamine synthetase. It is a trimetallic enzyme containing two divalent cation sites and one monovalent cation site per subunit. GLUL is able to regulate intracellular concentrations of glutamate and



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catalyzes the synthesis of glutamine form glutamate and ammonia. It is ubiquitously expressed in the human and plays a major role for many metabolic pathways such as cell proliferation, inhibition of apoptosis, and cell signaling. Recombinant Human GLUL was expressed in E. coli and purified by using conventional chromatography techniques

## **Amino acid Sequence**

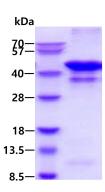
MTTSASSHLN KGIKQVYMSL PQGEKVQAMY IWIDGTGEGL RCKTRTLDSE PKCVEELPEW NFDGSSTLQS EGSNSDMYLV PAAMFRDPFR KDPNKLVLCE VFKYNRRPAE TNLRHTCKRI MDMVSNQHPW FGMEQEYTLM GTDGHPFGWP SNGFPGPQGP YYCGVGADRA YGRDIVEAHY RACLYAGVKI AGTNAEVMPA QWEFQIGPCE GISMGDHLWV ARFILHRVCE DFGVIATFDP KPIPGNWNGA GCHTNFSTKA MREENGLKYI EEAIEKLSKR HQYHIRAYDP KGGLDNARRL TGFHETSNIN DFSAGVANRS ASIRIPRTVG QEKKGYFEDR RPSANCDPFS VTEALIRTCL LNETGDEPFQ YKN

## **General References**

Liaw SH., et al. (1995) Protein Sci. 4(11): 2358-65. Vermeulen T., et al. (2008) Arch Biochem Biophys. 478(1): 96-102.

## DATA

### **SDS-PAGE**



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

