Recombinant Human Glutamate-ammonia Ligase, His-tagged

Cat. No. GLUL-769H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human GLUL protein, fused to His-tag at N-terminus, was expressed in*E.coli*and purified by using conventional chromatography techniques. MW = 44.2kDa (393aa), confirmed by MALDI-TOF.
Species	Human
Source	E.coli
Description	Glutamine synthetase (GLUL), which is therefore able to regulate intracellular concentrations of glutamate. GLUL catalyzes the synthesis of glutamine from glutamate and ammonia. Glutamine is a main source of energy and is involved in cell proliferation, inhibition of apoptosis, and cell signaling. GLUL is essential for proliferation of fetal skin fibroblasts and plays an important role in controlling body pH by removing ammonia from circulation. Mutations in GLUL are associated with congenital glutamine deficiency.
Sequences Of Amino Acids	MGSSHHHHHH SSGLVPRGSH 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

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Form	Liquid. In 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 5mM DTT, 200mM NaCl.
Purity	> 90% by SDS – PAGE.
Concentration	1 mg/ml (determined by Bradford assay).
Storage	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name	GLUL glutamate-ammonia ligase [Homo sapiens]
Synonyms	GLUL; glutamate-ammonia ligase; GS; GLNS; PIG43; PIG59; glutamine synthetase; glutamine synthase; glutamate decarboxylase; glutamate--ammonia ligase; proliferation-inducing protein 43; cell proliferation-inducing protein 59; EC 4.1.1.15; EC 6.3.1.2; glutamate-ammonia ligase (glutamine synthase)
Gene ID	2752
mRNA Refseq	NM_001033044
Protein Refseq	NP_001028216
MIM	138290
UniProt ID	P15104
Chromosome Location	1q31

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Pathway	Alanine, aspartate and glutamate metabolism; Arginine and proline metabolism; Metabolic pathways; Nitrogen metabolism
Function	ATP binding; glutamate decarboxylase activity; glutamate-ammonia ligase activity; identical protein binding; ligase activity; lyase activity; nucleotide binding

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