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**Product Data Sheet**


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Product Name: GLUL Human, Active

Cat. No.: GP21694

Batch No.: 1

**Product Data**

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Glutamine synthetase; GLUL Active; GLUL; Glutamine Synthetase; Active; GLNS; GS; PIG43; PIG59; Glutamate decarboxylase (EC:4.1.1.15); Glutamate--ammonia ligase.		
Amino Acid Sequence	MTTSASSHLN KGIKQVYMSL PQGEKVQAMY IWIDGTGEGE RCKTRTL DSE PKCVEELPEW NFDGSSTLQS EGSNSDMYLV PAAMFRDPFR KDPNKLVLCE VFKYNRRPAE TNLRHTCKRI MDMVSNQHPW FGMEQEYTLM GTDGHPFGWP SNGFPGPQGP YYCGVGADRA YGRDIVEAHY RACLYAGVKI AGTNAEVMMPA QWEFQIGPCE GISMGDHLWV ARFILHRVCE DFGVIATFDP KPIPGNWNGA GCHTNFSTKA MREENGLKYI EEAIEKLSKR HQYHIRAYDP KGGLDNARRL TGFHETSNIN DFSAGVANRS ASIRIPRTVG QEKKGYFEDR RPSANCDPFS VTEALIRTCL LNETGDEPFQ YKN.		
Formulation	GLUL protein solution (1mg/ml) containing 20mM Tris-HCl buffer (pH8.0), 10% glycerol 1mM DTT and 0.1mM PMSF.		

**Introduction**

GLUL catalyzes the synthesis of glutamine from glutamate and ammonia. Glutamine is a major source of energy and that takes part in cell proliferation, inhibition of apoptosis, and cell signaling. GLUL is expressed during early fetal stages, and has a role in maintaining body pH by removing ammonia from circulation. Mutations in GLUL gene are related with congenital glutamine deficiency.

**Biological Activity**

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

**Caution: Product has not been fully validated for medical applications. For research use only.**

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### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

GLUL Recombinant Human produced in E.Coli is a single, non-glycosylated polypeptide chain containing 373 amino acids (1-373) and having a molecular mass of 42kDa.

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