

## 32-2371: GLUD1 Recombinant Protein

**Alternative Name :** Glutamate Dehydrogenase 1, GLUD, GDH 1, EC 1.4.1.3, GDH, GDH1, Glutamate Dehydrogenase (NAD(P)+), Glutamate Dehydrogenase 1 Mitochondrial, EC 1.4.1, GLUD1.

### Description

Source : Escherichia Coli. GLUD1 Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 528 amino acids (54-558) and having a molecular mass of 58.4kDa. GLUD1 is fused to a 23 amino acid His-tag at N-terminus. Glutamate dehydrogenase 1, mitochondrial precursor (GLUD1) is a member of the Glu/Leu/Phe/Val dehydrogenases family. GLUD1 is a mitochondrial glutamate dehydrogenase, which converts L-glutamate into alpha-ketoglutarate. GLUD1 has a pivotal role in nitrogen metabolism in plants and animals. GLUD1 is observed in all organisms and catalyzes the oxidative deamination of L-glutamate to 2-oxoglutarate. The GLUD1 enzyme has a vital role in regulating amino acid induced insulin secretion. GLUD1 gene mutations cause hyperinsulinism-hyperammonemia syndrome (HHS), which is an inherited condition characterized by high insulin and ammonia levels in the blood. GLUD1 enzyme is allosterically activated by ADP and inhibited by GTP and ATP.

### Product Info

**Amount :** 20 µg

**Purification :** Greater than 80.0% as determined by SDS-PAGE.

**Content :** The GLUD1 solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.4M Urea and 10% glycerol.

**Storage condition :** 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.

**Amino Acid :** MGSSHHHHHH SSGLVPRGSH MGSSEAVADR EDDPNFFKMV EGFFDRGASI VEDKLVEDLR  
TRESEEQKRN RVRGILRIK PCNHVLSLSF PIRRDDGSWE VIEGYRAQHS QHRTPCGGI RYSTDVSVD  
VKALASLMTY KCAVVDVPGF GAKAGVKINP KNYTDNELEK ITRRFTMELA KKGFIGPGID VPAPDMSTGE  
REMSWIADTY ASTIGHYDIN AHACVTGKPI SQGGIHGRIS ATGRGVFHGI ENFINEASYM SILGMTPGFG  
DKTFVVQFG NVGLHSMRYL HRFGAKCIAV GESDGSINWP DGIDPKELED FKLQHGSI LG FPKAKPYEGS  
ILEADCDILI PAASEKQLTK SNAPRVKAKI IAEGANGPTT PEADKIFLER NIMVIPDLYL NAGGVTVSFY  
EWLKNLNHVS YGRLTFKYER DSNYHLLMSV QESLERKFGK HGGTIPVPT AEFQDRISGA SEKDIVHSG  
AYTMERSARQ IMRTAMKYNL GLDLRTAAYV NAIKVFVKY NEAGVTFT.

