Recombinant Human GLUD1, His-tagged

Cat. No. GLUD1-160H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	GLUD1, 54-558aa, Human, His tag, E.coli
Species	Human
Source	E.coli
ProteinLength	54-558aa
Description	Glutamate dehydrogenase 1, mitochondrial precursor, also known as GLUD1, belongs to the Glu/Leu/Phe/Val dehydrogenases family. GLUD1 has a central role in nitrogen metabolism in plants and animals. GLUD1 is found in all organisms and catalyzes the oxidative deamination of 1-glutamate to 2-oxoglutarate. Mutations in the gene encoding GLUD1 causes hyperinsulinism-hyperammonemia syndrome (HHS), which is an inherited condition characterized by high insulin and ammonia levels in the blood. GLUD1 may also be involved in learning and memory reactions by increasing the turnover of the excitatory neurotransmitter glutamate. Recombinant human GLUD1 protein, fused to His-tag at N-terminus, was expressed in E.coli.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.4M Urea, 10% glycerol
Molecular Mass	58.4 kDa (528aa)
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSSEAVADR EDDPNFFKMV EGFFDRGASI VEDKLVEDLR TRESEEQKRN RVRGILRIIK PCNHVLSLSF PIRRDDGSWE VIEGYRAQHS QHRTPCKGGI RYSTDVSVDE VKALASLMTY KCAVVDVPFG

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	GAKAGVKINP KNYTDNELEK ITRRFTMELA KKGFIGPGID VPAPDMSTGE REMSWIADTY ASTIGHYDIN AHACVTGKPI SQGGIHGRIS ATGRGVFHGI ENFINEASYM SILGMTPGFG DKTFVVQGFG NVGLHSMRYL HRFGAKCIAV GESDGSIWNP DGIDPKELED FKLQHGSILG FPKAKPYEGS ILEADCDILI PAASEKQLTK SNAPRVKAKI IAEGANGPTT PEADKIFLER NIMVIPDLYL NAGGVTVSYF EWLKNLNHVS YGRLTFKYER DSNYHLLMSV QESLERKFGK HGGTIPIVPT AEFQDRISGA SEKDIVHSGL AYTMERSARQ IMRTAMKYNL GLDLRTAAYV NAIEKVFKVY NEAGVTFT
Purity	>80% by SDS - PAGE
Storage	Can be stored at +4C short term (1-2 weeks). For long term storage, aliquot and store at -20C or -70C. Avoid repeated freezing and thawing cycles.
Concentration	1mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name	GLUD1 glutamate dehydrogenase 1 [Homo sapiens]
Official Symbol	GLUD1
Synonyms	GLUD1; glutamate dehydrogenase 1; GLUD; glutamate dehydrogenase 1, mitochondrial; GDH; GDH 1; glutamate dehydrogenase (NAD(P)+); GDH1; MGC132003;
Gene ID	2746
mRNA Refseq	NM_005271
Protein Refseq	NP_005262

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MIM	138130
UniProt ID	P00367
Chromosome Location	10q23.2
Pathway	Alanine, aspartate and glutamate metabolism, organism-specific biosystem; Alanine, aspartate and glutamate metabolism, conserved biosystem; Amino acid synthesis and interconversion (transamination), organism-specific biosystem; Arginine and proline metabolism, organism-specific biosystem; Arginine and proline metabolism, conserved biosystem; D-Glutamine and D-glutamate metabolism, organism-specific biosystem; D-Glutamine and D-glutamate metabolism, conserved biosystem;
Function	ADP binding; ATP binding; GTP binding; NAD+ binding; glutamate dehydrogenase (NAD+) activity; glutamate dehydrogenase [NAD(P)+] activity; glutamate dehydrogenase [NAD(P)+] activity; identical protein binding; leucine binding; nucleotide binding; oxidoreductase activity; protein binding;

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