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# Recombinant human GLUD1 protein

Catalog Number: ATGP2653

# PRODUCT INFORMATION

# **Expression system**

E.coli

#### **Domain**

54-558aa

#### UniProt No.

P00367

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

NP 005262

#### **Alternative Names**

Glutamate dehydrogenase 1, mitochondrial, GDH, GDH1, GLUD

# PRODUCT SPECIFICATION

## **Molecular Weight**

58.4 kDa (528aa)

#### Concentration

1mg/ml (determined by Bradford assay)

#### **Formulation**

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.4M urea, 10% glycerol

#### **Purity**

> 80% by SDS-PAGE

## Tag

His-Tag

#### **Application**

SDS-PAGE, Denatured

# **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**

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



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GLuD1 protein, fused to His-tag at N-terminus, was expressed in E. coli.

# **Amino acid Sequence**

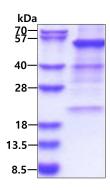
<MGSSHHHHHH SSGLVPRGSH MGS>SEAVADR EDDPNFFKMV EGFFDRGASI VEDKLVEDLR TRESEEQKRN RVRGILRIIK PCNHVLSLSF PIRRDDGSWE VIEGYRAQHS QHRTPCKGGI RYSTDVSVDE VKALASLMTY KCAVVDVPFG GAKAGVKINP KNYTDNELEK ITRRFTMELA KKGFIGPGID VPAPDMSTGE REMSWIADTY ASTIGHYDIN AHACVTGKPI SQGGIHGRIS ATGRGVFHGI ENFINEASYM SILGMTPGFG DKTFVVQGFG 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

#### **General References**

Mastorodemos V., et al. (2009) Biochem Cell Biol. 87:505-516. Tanizawa Y., et al. (2002) Diabetes. 51:712-717.

# **DATA**

#### **SDS-PAGE**



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

