10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# GLUD1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11701b

## Product Information

| | |
|---|---|
| **Application** | WB, IHC-P, E |
| **Primary Accession** | P00367 |
| **Other Accession** | P49448, P10860, P26443, P00368, P00366, NP_005262.1 |
| **Reactivity** | Human, Mouse |
| **Predicted** | Bovine, Chicken, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB20073 |
| **Calculated MW** | 61398 |
| **Antigen Region** | 438-465 |

## Additional Information

| | |
|---|---|
| **Gene ID** | 2746 |
| **Other Names** | Glutamate dehydrogenase 1, mitochondrial, GDH 1, GLUD1, GLUD |
| **Target/Specificity** | This GLUD1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 438-465 amino acids from the C-terminal region of human GLUD1. |
| **Dilution** | WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | GLUD1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

| | |
|---|---|
| **Name** | GLUD1 |
| **Synonyms** | GLUD |
| **Function** | Mitochondrial glutamate dehydrogenase that catalyzes the conversion of |

| | |
|---|---|
| | L-glutamate into alpha-ketoglutarate. Plays a key role in glutamine anaplerosis by producing alpha-ketoglutarate, an important intermediate in the tricarboxylic acid cycle (PubMed:11032875, PubMed:11254391, PubMed:16023112, PubMed:16959573). Plays a role in insulin homeostasis (PubMed:11297618, PubMed:9571255). May be involved in learning and memory reactions by increasing the turnover of the excitatory neurotransmitter glutamate (By similarity). |
| **Cellular Location** | Mitochondrion. Endoplasmic reticulum. Note=Mostly translocates into the mitochondria, only a small amount of the protein localizes to the endoplasmic reticulum. |

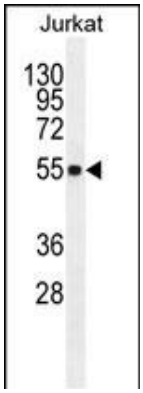
## Background

This gene encodes glutamate dehydrogenase protein; a mitochondrial matrix enzyme that catalyzes the oxidative deamination of glutamate to alpha-ketoglutarate and ammonia. This enzyme has an important role in regulating amino acid induced insulin secretion and activating mutations in this gene are a common cause of congenital hyperinsulinism. This enzyme is allosterically activated by ADP and inhibited by GTP and ATP. The related glutamate dehydrogenase 2 gene on the human X-chromosome originated from this gene via retrotransposition and encodes a soluble form of glutamate dehydrogenase. Multiple pseudogenes of this gene are present in humans.

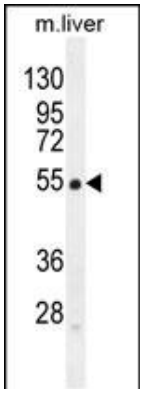
## References


Martins-de-Souza, D., et al. J Psychiatr Res 44(14):989-991(2010)
Jia, P., et al. Schizophr. Res. 122 (1-3), 38-42 (2010) :
Joslyn, G., et al. Alcohol. Clin. Exp. Res. 34(5):800-812(2010)
Flanagan, S.E., et al. Eur. J. Endocrinol. 162(5):987-992(2010)
Bao, X., et al. J. Neurosci. 29(44):13929-13944(2009)

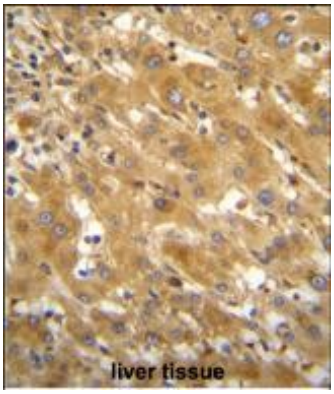

## Images




GLUD1 Antibody (C-term) (Cat. #AP11701b) western blot analysis in Jurkat cell line lysates (35ug/lane).This demonstrates the GLUD1 antibody detected the GLUD1 protein (arrow).




GLUD1 Antibody (C-term) (Cat. #AP11701b) western blot analysis in mouse liver tissue lysates (35ug/lane).This demonstrates the GLUD1 antibody detected the GLUD1 protein (arrow).




GLUD1 Antibody (C-term) (Cat. #AP11701b)immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of GLUD1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

## Citations

- Antrodia cinnamomea Inhibits Migration in Human Hepatocellular Carcinoma Cells.
- NOX1 Supports the Metabolic Remodeling of HepG2 Cells.