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, Canine, Rabbit
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.

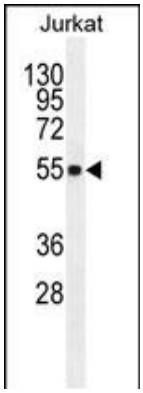
Background

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.

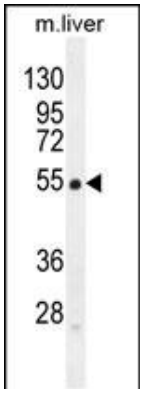
References

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)

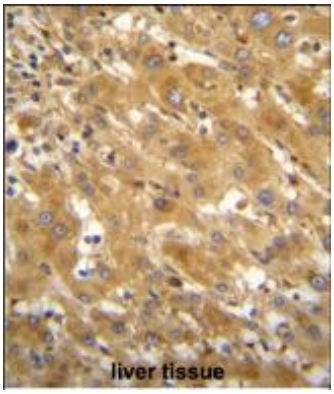
Images



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

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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.