GLUD2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	GLUD2, Polyclonal Antibody
Full Product Name	GLUD2, NT (GLUD2, GLUDP1, Glutamate dehydrogenase 2, mitochondrial) (MaxLight 490)
Product Gene Name	anti-GLUD2 antibody
Product Synonym Names	GLUD2; GLUDP1; Glutamate dehydrogenase 2, mitochondrial
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490.
Purity/Purification	Purified by Protein A and Peptide Affinity Chromatography.
Specificity	Recognizes human GLUD2.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight490 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	61,434 Da
Chromosome Location	Chromosome: X; NC_000023.10 (120181462..120183796). Location: Xq24-q25
OMIM	300144
3D Structure	ModBase 3D Structure for P49448
Immunogen	KLH-conjugated synthetic peptide mapping to a fragment of residues within amino acids 75-103 in the N-terminal region of human GLUD2. Cellular Localization: Mitochondrial matrix
Conjugate	MaxLight490
Note	Preservative Free
Product Categories/Family for anti-GLUD2 antibody	Antibodies; Mitochondrial Proteins
Applications Tested/Suitable for anti-GLUD2 antibody	Western Blot (WB), FLISA
Application Notes for anti-GLUD2 antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-GLUD2 antibody	The protein encoded by this gene is localized to the mitochondrion and acts as a homohexamer to recycle glutamate during neurotransmission. The encoded enzyme catalyzes the reversible oxidative deamination of glutamate to alpha-ketoglutarate. This gene is intronless.
Product References and Citations for anti-GLUD2 antibody	1. Spanaki, C., et al. J. Biol. Chem. 285(22):16748-16756(2010). 2. Plaitakis, A., et al. Eur. J. Hum. Genet. 18(3):336-341(2010). 3. Zaganas, I., et al. Neurochem. Int. 55 (1-3), 52-63 (2009). 4. Mastorodemos, V., et al. Biochem. Cell Biol. 87(3):505-516(2009). 5. Kanavouras, K., et al. J. Neurochem. 109 SUPPL 1, 167-173 (2009).

Other Notes	Small volumes of anti-GLUD2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for GLUD2 purchase	MBS6302738 is an antibody targeting GLUD2. Also known as GLUD2, NT (GLUD2, GLUDP1, Glutamate dehydrogenase 2, mitochondrial) (MaxLight 490). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GLUD2. It may not necessarily be applicable to this product.

NCBI GI #	31377775
NCBI GeneID	2747
NCBI Accession #	NP_036216.2
UniProt Primary Accession #	P49448
UniProt Secondary Accession #	Q9UDQ4; B2R8G0
UniProt Related Accession #	P49448
GenBank Nucleotide #	NM_012084.3
NCBI Official Full Name	glutamate dehydrogenase 2, mitochondrial
NCBI Official Synonym Full Names	glutamate dehydrogenase 2
NCBI Official Symbol	GLUD2
NCBI Official Synonym Symbols	GDH2; GLUDP1
UniProt Protein Name	Glutamate dehydrogenase 2, mitochondrial
Protein Family	Glutamate receptor ionotropic
UniProt Gene Name	GLUD2
UniProt Synonym Gene Names	GLUDP1; GDH 2
UniProt Entry Name	DHE4_HUMAN
NCBI Protein Information	glutamate dehydrogenase 2, mitochondrial; GDH 2; glutamate dehydrogenase pseudogene 1
UniProt Comments for GLUD2	Function: Important for recycling the chief excitatory neurotransmitter, glutamate, during neurotransmission. Catalytic activity: L-glutamate + H2O + NAD(P)+ = 2-oxoglutarate + NH3 + NAD(P)H. Subunit structure: Homohexamer By similarity. Subcellular location: Mitochondrion matrix Ref.7. Tissue specificity: Expressed in retina, testis and, at a lower level, brain. Post-translational modification: Stoichiometry shows that ADP-ribosylation occurs in one subunit per catalytically active homohexamer. Sequence similarities: Belongs to the Glu/Leu/Phe/Val dehydrogenases family.
Research Articles on GLUD2	**1.** first N-terminal alpha helical structure is crucial for the mitochondrial import of hGDH2 and these findings may have implications in understanding the evolutionary mechanisms that led to the large mitochondrial targeting signals of human GDHs

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