ARG55323
anti-GLUD1 + GLUD2 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes GLUD1 + GLUD2
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, IP, WB
Specificity	This antibody was designed to react N-terminal of GLUD1 protein and it is expected to recognize both GLUD1 and GLUD2 proteins based on sequence homology analysis result
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	GLUD1 + GLUD2
Species	Human
Immunogen	Recombinant protein corresponding to aa. 54-240 of Human GLUD1 (NP_005262.1)
Conjugation	Un-conjugated
Alternate Names	GDH1; GDH 1; Glutamate dehydrogenase 1, mitochondrial; GDH; GLUD; EC 1.4.1.3; Glutamate dehydrogenase 2, mitochondrial; GLUDP1; EC 1.4.1.3; GDH 2; GDH2

Application Instructions

Application table

Application	Dilution
ICC/IF	1:50 - 1:200
IHC-P	1:50 - 1:200
IP	1:50 - 1:200
WB	1:500 - 1:2000

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	HeLa

Properties

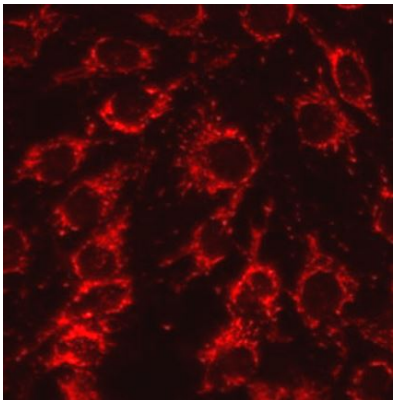
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

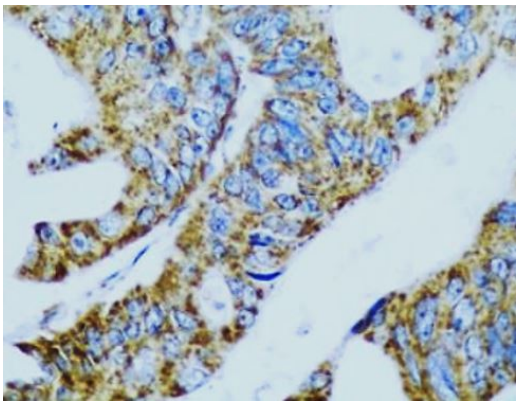
Gene Symbol	GLUD1
Gene Full Name	glutamate dehydrogenase 1
Background	This gene encodes glutamate dehydrogenase protein; a mitochondrial matrix enzyme that catalyzes the oxidative deamination of glutamate to alpha-ketoglutarate and ammonia. This enzyme has an important role in regulating amino acid induced 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.[provided by RefSeq, Sep 2009]
Function	Mitochondrial glutamate dehydrogenase that converts L-glutamate into alpha-ketoglutarate. Plays a key role in glutamine anaplerosis by producing alpha-ketoglutarate, an important intermediate in the tricarboxylic acid cycle. May be involved in learning and memory reactions by increasing the turnover of the excitatory neurotransmitter glutamate (By similarity). [UniProt]
Research Area	Cell Biology and Cellular Response antibody; Metabolism antibody; Signaling Transduction antibody
Calculated Mw	61 kDa
PTM	ADP-ribosylated by SIRT4, leading to inactivate glutamate dehydrogenase activity (By similarity). Stoichiometry shows that ADP-ribosylation occurs in one subunit per catalytically active homohexamer.

Images



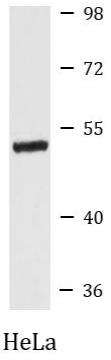
ARG55323 anti-GLUD1 + GLUD2 antibody ICC/IF image

Immunofluorescence: C6 cells stained with ARG55323 anti-GLUD1 + GLUD2 antibody at 1:100 dilution.



ARG55323 anti-GLUD1 + GLUD2 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human colon carcinoma tissue stained with ARG55323 anti-GLUD1 + GLUD2 antibody at 1:100 dilution.



ARG55323 anti-GLUD1 + GLUD2 antibody WB image

Western blot: HeLa cell lysate stained with ARG55323 anti-GLUD1 + GLUD2 antibody.