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Glutaminase Antibody

Rabbit mAb
Catalog # AP90722

Product Information

Application	WB, IHC, IF, ICC, IHF
Primary Accession	O94925
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	Glutaminase kidney isoform; GLS; GLS1, KGA; K-glutaminase; GAM; GAC; Glutaminase C; L-glutamine amidohydrolase;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	73461

Additional Information

Dilution	WB 1:1000~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Glutaminase
Description	Catalyzes the first reaction in the primary pathway for the renal catabolism of glutamine. Plays a role in maintaining acid-base homeostasis. Regulates the levels of the neurotransmitter glutamate in the brain. Isoform 2 lacks catalytic activity. Isoform 1 and isoform 3 are activated by phosphate. Inhibited by BPTES. BPTES binds between subunits and favors dissociation of the tetramer into dimers.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

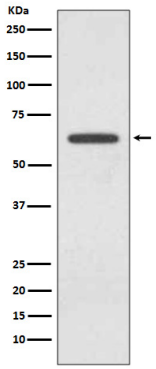
Name	GLS
Synonyms	GLS1, KIAA0838
Function	Catalyzes the first reaction in the primary pathway for the renal catabolism of glutamine. Plays a role in maintaining acid-base homeostasis. Regulates the levels of the neurotransmitter glutamate, the main excitatory neurotransmitter in the brain (PubMed:30239721, PubMed:30575854, PubMed:30970188).
Cellular Location	[Isoform 1]: Mitochondrion {ECO:0000250|UniProtKB:P13264}. Cytoplasm, cytosol. Note=The 74-kDa cytosolic precursor is translocated into the mitochondria and processed via a 72-kDa intermediate to yield the mature 68- and 65-kDa subunits {ECO:0000250|UniProtKB:P13264} [Glutaminase

kidney isoform, mitochondrial 68 kDa chain]: Mitochondrion matrix {ECO:0000250|UniProtKB:P13264} Note=Produced by the proteolytic processing of the 74-kDa cytosolic precursor. {ECO:0000250|UniProtKB:P13264}

Tissue Location

Isoform 1 and isoform 3 are detected in brain cortex. Isoform 3 is highly expressed in astrocytoma, ganglioglioma and ependymoma. Isoform 1 is highly expressed in brain and kidney, but not detected in liver. Isoform 3 is highly expressed in heart and pancreas, detected at lower levels in placenta, lung, pancreas and kidney, but is not detected in liver. Isoform 2 is expressed in cardiac and skeletal muscle.

Images



Western blot analysis of Glutaminase expression in 293T cell lysate.

Image not found : 202311/AP90722-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human brain, using Glutaminase Antibody.