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Glutaminase Antibody
Rabbit mAb
Catalog # AP90722

Specification

Glutaminase Antibody - Product Information

Application	**WB, IHC, ICC**
Primary Accession	O94925
Reactivity	**Rat**
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 Da**

Glutaminase Antibody - Additional Information

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.**

Glutaminase Antibody - 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:<a

href="http://www.uniprot.org/citations/30239721" target="_blank">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}

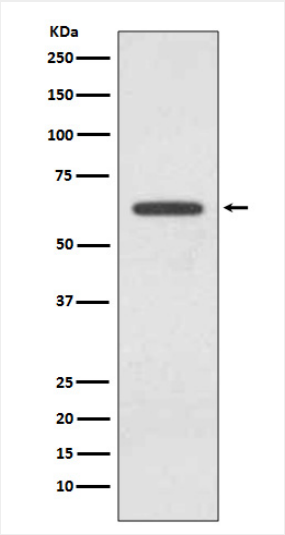
Tissue Location
Isoform 1 and isoform 3 are detected in brain cortex. Isoform 3 is highly expressed in astrocytoma, ganglioglioma and ependymoma. Isoform 1 is highly expressed in brain and kidney, but not detected in liver. Isoform 3 is highly expressed in heart and pancreas, detected at lower levels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

Glutaminase Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Glutaminase Antibody - Images



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