

GLS Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP8809b**Specification**

GLS Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [O94925](#)**GLS Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 2744**Other Names**

Glutaminase kidney isoform, mitochondrial, GLS, K-glutaminase, L-glutamine amidohydrolase, GLS, GLS1, KIAA0838

Target/Specificity

The synthetic peptide sequence used to generate the antibody [BP8809b](#) was selected from the C-term region of human GLS. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

GLS Antibody (C-term) Blocking Peptide - 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](http://www.uniprot.org/citations/30239721), PubMed:[30575854](http://www.uniprot.org/citations/30575854), PubMed:[30970188](http://www.uniprot.org/citations/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.

GLS Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

GLS Antibody (C-term) Blocking Peptide - Images

GLS Antibody (C-term) Blocking Peptide - Background

Sahai (1983) demonstrated phosphate-activated glutaminase (EC 3.5.1.2) in human platelets. It is the major enzyme yielding glutamate from glutamine. Significance of the enzyme derives from its possible implication in behavior disturbances in which glutamate acts as a neurotransmitter (Prusiner, 1981). High heritability of platelet glutaminase was indicated by studies of Sahai and Vogel (1983) [PubMed 6682827] who found an intraclass correlation coefficient of 0.96 for monozygotic twins and 0.53 for dizygotic twins.

GLS Antibody (C-term) Blocking Peptide - References

Swierczynski, J., et al., Biochim. Biophys. Acta 1157 (1), 55-62 (1993)