

GLS Blocking Peptide (N-Term)
Synthetic peptide
Catalog # BP21776a**Specification**

GLS Blocking Peptide (N-Term) - Product InformationPrimary Accession [O94925](#)**GLS Blocking Peptide (N-Term) - 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 is selected from aa 164-177 of HUMAN GLS

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 Blocking Peptide (N-Term) - 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:30575854, PubMed:30239721, 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.

GLS Blocking Peptide (N-Term) - Protocols

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

- [Blocking Peptides](#)

GLS Blocking Peptide (N-Term) - Images**GLS Blocking Peptide (N-Term) - Background**

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.

GLS Blocking Peptide (N-Term) - References

Elgadi K.M.,et al.Physiol. Genomics 1:51-62(1999).
Nagase T.,et al.DNA Res. 5:355-364(1998).
Chavez R.A.,et al.Submitted (JAN-2000) to the EMBL/GenBank/DDBJ databases.
Holcomb T.,et al.Brain Res. Mol. Brain Res. 76:56-63(2000).
Turner A.,et al.Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.