

GCKR Blocking Peptide (N-Term)

Synthetic peptide

Catalog # BP21610a

Specification

GCKR Blocking Peptide (N-Term) - Product Information

Primary Accession

[Q14397](#)**GCKR Blocking Peptide (N-Term) - Additional Information****Gene ID** 2646**Other Names**

Glucokinase regulatory protein, GGRP, Glucokinase regulator, GCKR

Target/Specificity

The synthetic peptide sequence is selected from aa 87-100 of HUMAN GCKR

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.

GCKR Blocking Peptide (N-Term) - Protein Information**Name** GCKR {ECO:0000303|PubMed:8589523, ECO:0000312|HGNC:HGNC:4196}**Function**

Regulates glucokinase (GCK) by forming an inactive complex with this enzyme (PubMed:23621087, PubMed:23733961). Acts by promoting GCK recruitment to the nucleus, possibly to provide a reserve of GCK that can be quickly released in the cytoplasm after a meal (PubMed:10456334). The affinity of GCKR for GCK is modulated by fructose metabolites: GCKR with bound fructose 6-phosphate has increased affinity for GCK, while GCKR with bound fructose 1-phosphate has strongly decreased affinity for GCK and does not inhibit GCK activity (PubMed:23621087, PubMed:23733961).

Cellular Location

Cytoplasm. Nucleus. Mitochondrion {ECO:0000250|UniProtKB:Q07071}. Note=Under low glucose concentrations, GCKR associates with GCK and the inactive complex is recruited to the hepatocyte

nucleus.

Tissue Location

Found in liver and pancreas. Not detected in muscle, brain, heart, thymus, intestine, uterus, adipose tissue, kidney, adrenal, lung or spleen.

GCKR Blocking Peptide (N-Term) - Protocols

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

- [Blocking Peptides](#)

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

Inhibits glucokinase (GCK) by forming an inactive complex with this enzyme. The affinity of GCKR for GCK is modulated by fructose metabolites: GCKR with bound fructose 6- phosphate has increased affinity for GCK, while GCKR with bound fructose 1-phosphate has strongly decreased affinity for GCK and does not inhibit GCK activity.

GCKR Blocking Peptide (N-Term) - References

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Hayward B.E.,et al.Genomics 49:137-142(1998).
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