

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 NamesGlucokinase regulatory protein, GKRP,
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:<a href="http://www.uniprot.org/citations/23621087"

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

Warner J.P.,et al.Mamm. Genome 6:532-536(1995).
Hayward B.E.,et al.Genomics 49:137-142(1998).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Hillier L.W.,et al.Nature 434:724-731(2005).
de la Iglesia N.,et al.FEBS Lett. 456:332-338(1999).

target="_blank">23621087,
PubMed:<a href="http://www.uniprot.org/citations/23733961"
target="_blank">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:<a href="http://www.
uniprot.org/citations/10456334"
target="_blank">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:<a href="http://www.uniprot.org/citations/23621087"
target="_blank">23621087,
PubMed:<a href="http://www.uniprot.org/citations/23733961"
target="_blank">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](#)