

cGKII Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP8001a**Specification**

cGKII Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [Q13237](#)**cGKII Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 5593**Other Names**

cGMP-dependent protein kinase 2, cGK 2, cGK2, cGMP-dependent protein kinase II, cGKII, PRKG2, PRKGR2

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP8001a](/product/products/AP8001a) was selected from the C-term region of human cGKII. 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.

cGKII Antibody (C-term) Blocking Peptide - Protein Information**Name** PRKG2**Synonyms** PRKGR2**Function**

Crucial regulator of intestinal secretion and bone growth. Phosphorylates and activates CFTR on the plasma membrane. Plays a key role in intestinal secretion by regulating cGMP-dependent translocation of CFTR in jejunum (PubMed: <http://www.uniprot.org/citations/33106379> target="_blank">33106379). Acts downstream of NMDAR to activate the plasma membrane accumulation of GRIA1/GLUR1 in synapse and increase synaptic plasticity. Phosphorylates GRIA1/GLUR1 at Ser-863 (By similarity). Acts as a regulator of gene expression and activator of the extracellular signal-regulated kinases MAPK3/ERK1 and MAPK1/ERK2 in mechanically stimulated osteoblasts. Under fluid shear stress, mediates ERK activation and subsequent induction of FOS, FOSL1/FRA1, FOSL2/FRA2 and FOSB that play a key role in the osteoblast anabolic response to

mechanical stimulation (By similarity).

Cellular Location

Apical cell membrane; Lipid-anchor

Tissue Location

Highly concentrated in brain, lung and intestinal mucosa

cGKII Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

cGKII Antibody (C-term) Blocking Peptide - Images**cGKII Antibody (C-term) Blocking Peptide - Background**

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the γ phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains.

cGKII Antibody (C-term) Blocking Peptide - References

Vaandrager, A.B., et al., J. Biol. Chem. 278(31):28651-28658 (2003). Gambaryan, S., et al., Biochem. Biophys. Res. Commun. 293(5):1438-1444 (2002). Orstavik, S., et al., Biochem. Biophys. Res. Commun. 220(3):759-765 (1996). Fujii, M., et al., FEBS Lett. 375(3):263-267 (1995).