

## PRKG2 Protein, Human (Sf9, GST)

Cat. No.:	HY-P701759
Synonyms:	PRKG2; cGMP-dependent protein kinase 2; cGK 2; cGK2; cGMP-dependent protein kinase II; cGKII
Species:	Human
Source:	Sf9 insect cells
Accession:	Q13237 (M1-F762)
Gene ID:	5593
Molecular Weight:	

### PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

### DESCRIPTION

Background	PRKG2 protein serves as a pivotal regulator in both intestinal secretion and bone growth. Its primary role involves phosphorylating and activating CFTR on the plasma membrane, crucially influencing intestinal secretion by orchestrating the cGMP-dependent translocation of CFTR in the jejunum. Additionally, PRKG2 operates downstream of NMDAR to activate the plasma membrane accumulation of GRIA1/GLUR1 in synapses, thereby enhancing synaptic plasticity. As a multifaceted mediator, PRKG2 also acts as a regulator of gene expression and an activator of extracellular signal-regulated kinases MAPK3/ERK1 and MAPK1/ERK2 in mechanically stimulated osteoblasts. Particularly under fluid shear stress, PRKG2 mediates ERK activation, leading to the subsequent induction of FOS, FOSL1/FRA1, FOSL2/FRA2, and FOSB, crucial players in the osteoblast anabolic response to mechanical stimulation.
------------	---

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA