

Catalog No.: RP03417LQ **Recombinant**

Species	Gene ID	Swiss Prot
Human	5593	O13237

Tags
N-GST

PRKG2; PRKGR2; cGK 2; cGK2; cGKII;
cGMP-dependent protein kinase 2

Source	Purification
Baculovirus-Insect Cells	≥ 90 % as determined by SDS-PAGE; ≥ 90 % as determined by HPLC.

Calculated MW	Observed MW
114.0 kDa	90-120 kDa

< 1 EU/μg of the protein by LAL method.

Supplied as a 0.22 µm filtered solution in 50 mM Tris, 150 mM NaCl, 1 mM DTT and 5% glycerol. (pH 7.5). Contact us for customized product form or formulation.

Please use running water to thaw it quickly.

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PRKG2 encodes cGMP-dependent protein kinase II (cGKII), which is a serine/threonine kinase activated by the second messenger cGMP. cGKII is expressed abundantly in several tissues including the intestines, kidney, and brain, whereas it is found at lower levels in the lungs, prostate, growth plates, pancreas, and salivary glands. cGKII phosphorylates various targets that are important for several biological functions. For example, it plays a key role in modulating secretion from cells in the kidney, epithelium, and adrenal gland by phosphorylating the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) chloride channel. Importantly, loss-of-function mutations or genetic ablation of cGKII cause dwarfism in humans and rodents as cGKII regulates bone mass, as seen in human microdeletion 4q21 syndrome.

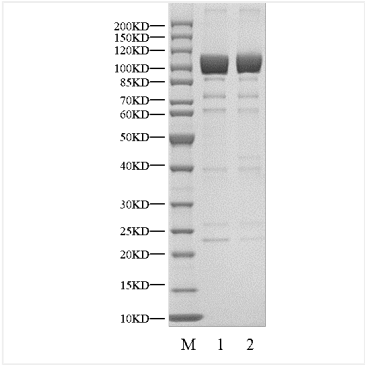
Recombinant Human PRKG2 Kinase is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Met1-Phe762) of Human PRKG2 (Accession #Q13237) fused with a N-GST tag.

The activity of PRKG2 is based on the MSA technology, and the content and ratio of the substrate and the product are directly separated and detected in real time and dynamically by the different migration rates of the substrate and the product after the enzymatic reaction.

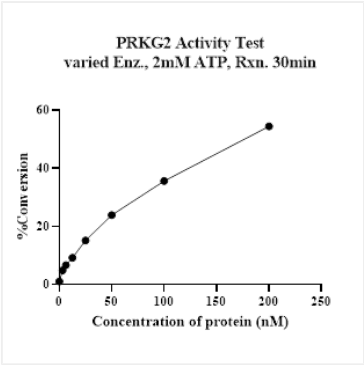
Store at -70°C. This product is stable at $\leq -70^{\circ}\text{C}$ for up to 1 year from the date of receipt. For optimal storage, aliquot into smaller quantities after centrifugation and store at recommended temperature.

Aliquots below 10 μ L are not advisable. Product must not be stored in diluted solutions. Avoid repeated freeze-thaw cycles.

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Recombinant Human PRKG2 Kinase was resolved with SDS-PAGE under reducing (Lane 1) and non-reducing (Lane 2) conditions.



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