

Recombinant Human Protein Kinase, cGMP-Dependent, Type II, GST-tagged

Cat. No. PRKG2-1089H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human PRKG2 was expressed by baculovirus in Sf9 insect cells using a N-terminal GST tag.
Species	Human
Source	Sf9 Cells
Description	PRKG2 is a member of the cGMP-dependent protein kinase family and is highly expressed in brain, lung, and intestinal mucosa. PRKG2 mediates intestinal secretion of water and electrolytes induced by the E. coli toxin STa and the intestinal peptide guanylin. Mice deficient in PRKG2 are resistant to E. coli STa and developed dwarfism which is caused by a severe defect in endochondral ossification at the growth plates. PRKG2 phosphorylates SOX9 and attenuates SOX9 function by inhibiting its nuclear entry.
Applications	Kinase Assay; Western Blot
Molecular Weight	112 kDa
Expression System	Sf9 insect cells using baculovirus
Form	Recombinant protein stored in 50 mM Tris-HCL, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM PMSF, 0.25 mM DTT, 25% glycerol, 0.1 mM EDTA.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Specific Activity	268 nmol/min/mg
Purity	> 90 %
Concentration	0.1 ug/ul
Storage	Store product at -70oC. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Pathways	Formation of Platelet plug; Gap junction; Hemostasis; Long-term depression; Nitric oxide stimulates guanylate cyclase; Olfactory transduction; Platelet Activation; Platelet homeostasis; Salivary secretion; cGMP effects

GENE INFORMATION

Gene Name	PRKG2 protein kinase, cGMP-dependent, type II [Homo sapiens]
Official Symbol	PRKG2
Synonyms	PRKG2; protein kinase, cGMP-dependent, type II; cGKII; PRKGR2; cGMP-dependent protein kinase 2; cGK2; cGK 2; OTTHUMP00000160807; cGMP-dependent protein kinase II; NP_006250.1; EC 2.7.11.12
Gene ID	5593
mRNA Refseq	NM_006259
Protein Refseq	NP_006250
MIM	601591

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UniProt ID	Q13237
Chromosome Location	4q13.1-q21.1
Function	ATP binding; cGMP binding; cGMP-dependent protein kinase activity; nucleotide binding; protein kinase activity; protein serine/threonine kinase activity

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