

Product datasheet for PH320986

cGKI (PRKG1) (NM_006258) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	PRKG1 MS Standard C13 and N15-labeled recombinant protein (NP_006249)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC220986
Predicted MW:	77.6 kDa
Protein Sequence:	>RC220986 representing NM_006258 Red=Cloning site Green=Tags(s)

MGTLRDLQYALQEKEELRQRDALIDELELELDQKDELIQKLQNELDKYRSVIRPATQQAQKQSASTLQG
EPRTKRQAISAEPTAFDIQDL SHVTL PFYKSPQSKDLIKEAILDNDFMKNLELSQIQEIVDCMYPVEYG
KDSCIIKEGDVGS�VYAMEDGKVEVTKEGVKLC TMGPGKVF GELAILYNCTRTATVKTLVNVKLWADRQ
CFQTIMMRTGLIKHTEYMEFLKSVPTFQSLPEEILSKLADVLEETHYENGEYIIRQGARGDTFFIISKGT
VNVTRDPSSEDPVFLRTLKGKDFGKALQGEDVRTANVIAAEAVTCLVIDRDSFKHLIGGLDDVSNKA
YEDAEAKAKYEAEEAFFANLKL SDFNIIDTLGVGGFGRVELVQLKSEESKTFAMKILKKRHI VDRQOEH
IRSEKQIMQGAHSDFIVRLYRTFKDSKYL YLMEACLGGELWTILRDRGSFEDSTTRFYTACVVEAFAYL
HSKGI IYRDLKPENLILDHRGYAKLVDFGFAKKIGFGKKTWTFCGTPEYVAPEIILNKGHDI SADYWSLG
ILMYELLTGSPFSGPDPMKTYNIIILRGIDMIEFPKKIAKNAANLIKLCRDNP SERLGNLKNGVKDIQK
HKWFEFGNWEGLRKGTLTPPIIPSVASPTDTSNFDSPEDNDEPPDDNSGWDIDF

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- 13C6, 15N4]-L-Arginine and [U- 13C6, 15N2]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_006249
RefSeq Size:	3740



[View online »](#)

RefSeq ORF: 2058

Synonyms: AAT8; cGK; cGK 1; cGK1; cGKI; cGKI-alpha; cGKI-BETA; PKG; PKG1; PRKG1B; PRKGR1B

Locus ID: 5592

UniProt ID: [Q13976](#)

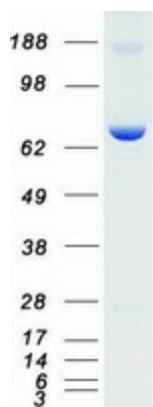
Cytogenetics: 10q11.23-q21.1

Summary: Mammals have three different isoforms of cyclic GMP-dependent protein kinase (Ialpha, Ibeta, and II). These PRKG isoforms act as key mediators of the nitric oxide/cGMP signaling pathway and are important components of many signal transduction processes in diverse cell types. This PRKG1 gene on human chromosome 10 encodes the soluble Ialpha and Ibeta isoforms of PRKG by alternative transcript splicing. A separate gene on human chromosome 4, PRKG2, encodes the membrane-bound PRKG isoform II. The PRKG1 proteins play a central role in regulating cardiovascular and neuronal functions in addition to relaxing smooth muscle tone, preventing platelet aggregation, and modulating cell growth. This gene is most strongly expressed in all types of smooth muscle, platelets, cerebellar Purkinje cells, hippocampal neurons, and the lateral amygdala. Isoforms Ialpha and Ibeta have identical cGMP-binding and catalytic domains but differ in their leucine/isoleucine zipper and autoinhibitory sequences and therefore differ in their dimerization substrates and kinase enzyme activity. [provided by RefSeq, Sep 2011]

Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: Gap junction, Long-term depression, Olfactory transduction, Vascular smooth muscle contraction

Product images:



Coomassie blue staining of purified PRKG1 protein (Cat# [TP320986]). The protein was produced from HEK293T cells transfected with PRKG1 cDNA clone (Cat# [RC220986]) using MegaTran 2.0 (Cat# [TT210002]).