

## Product datasheet for **TP320986L**

### **cGKI (PRKG1) (NM\_006258) Human Recombinant Protein**

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human protein kinase, cGMP-dependent, type I (PRKG1), transcript variant 2, 1 mg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC220986 representing NM_006258 <b>Red</b> =Cloning site <b>Green</b> =Tags(s)

MGTLRDLQYALQEKIEELRQRDALIDELELELDQKDELIQKLQNELDKYRSVIRPATQQAQKQSASTLQG  
EPRTKRQAI SA EPTAFDIQDLSHVTLPPFYKSPQSKDLIKEAILDNDFMKNLELSIQIQEIVDCMYPVEYG  
KDSCIIKEGDVGS LVYAMEDGKVEVTKEGVKLC TMGPGKVFGE LAILYNCTRATVKT LVNVKLWAI DRQ  
CFQTIMMRTGLIKHTEYMEFLKSVPTFQSLPEEILSKLADVLEETHYENGEYIIRQGARGDTFFIISKGT  
VNV TREDSPSEDPVFLRTL GKG DWFG EKALQGEDVRTANVIAAEAVTCLVIDRDSFKHLIGGLDDVS NKA  
YEDAEAKAKYEA EAAFFANLKLSDFNIIDTLGVGGFGRVELVQLKSEESKTFAMKILKKRHIVDTRQ QEH  
IRSEKQIMQGAHSD FIVRLYRTFKDSKYLYMLMEACLGGELWTLRDRGSFEDSTTRFYTACVVEAFAYL  
HSKGIYRDLKPENLILDHRGYAKLVDFGF AKKIGFGKKTWTF CGTPEYVAPEIILNKGHDISADYWSLG  
ILMYELLTGSPFSGPDP MKTYNIILRGIDMIEFPK KAKNAANLIKLC RDNPSERLGNLKNGVKDIQK  
HKWFEFNFWEGLRKGTLTPPIIPSVASPTDTSNFDSFPEDNDEPPPDDNSGWDIDF

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

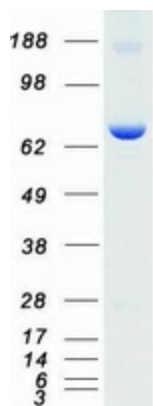
Tag:	C-Myc/DDK
Predicted MW:	77.6 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.



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<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_006249</a>
<b>Locus ID:</b>	5592
<b>UniProt ID:</b>	<a href="#">Q13976</a>
<b>RefSeq Size:</b>	3740
<b>Cytogenetics:</b>	10q11.23-q21.1
<b>RefSeq ORF:</b>	2058
<b>Synonyms:</b>	AAT8; cGK; cGK 1; cGK1; cGKI; cGKI-alpha; cGKI-BETA; PKG; PKG1; PRKG1B; PRKGR1B
<b>Summary:</b>	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]
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	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]).