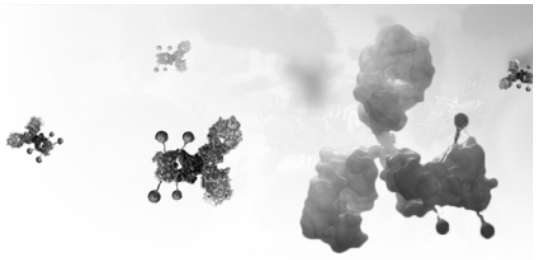

Anti-PRKG1 (aa 73-170) polyclonal antibody (DPAB-DC2458)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description	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.
Immunogen	PRKG1 (NP_006249, 73 a.a. ~ 170 a.a) partial recombinant protein with GST tag. The sequence is RTKRQAISAEPTAFDIQDLSHVTLPFYPKSPQSKDLIKEAILDNDFMKNLELSQIQEIVD CMYPVEYGKDSCIIKEGDVGSLVYVMEDGKVEVTKEGV
Source/Host	Mouse
Species Reactivity	Human
Conjugate	Unconjugated
Applications	WB (Recombinant protein), ELISA,
Size	50 µl
Buffer	50 % glycerol

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Preservative	None
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

GENE INFORMATION

Gene Name	PRKG1 protein kinase, cGMP-dependent, type I [Homo sapiens (human)]
Official Symbol	PRKG1
Synonyms	PRKG1; protein kinase, cGMP-dependent, type I; 1; PKG; cGK; AAT8; cGK1; cGKI; cGK 1; PRKG1B; PRKGR1B; cGKI-BETA; cGKI-alpha; cGMP-dependent protein kinase 1; protein kinase, cGMP-dependent, regulatory, type I, beta;
Entrez Gene ID	5592
Protein Refseq	NP_001091982
UniProt ID	Q13976
Chromosome Location	10q11.2
Pathway	Adaptive Immune System; Circadian entrainment; Hemostasis; Long-term depression
Function	ATP binding; cGMP binding; cGMP-dependent protein kinase activity; calcium channel regulator activity

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