

Rabbit anti-Human, Mouse cGMP-dependent protein kinase 1 Polyclonal Antibody | anti-PRKG1 antibody

Rabbit anti-human cGMP-dependent protein kinase 1 polyclonal Antibody(PRKG1)

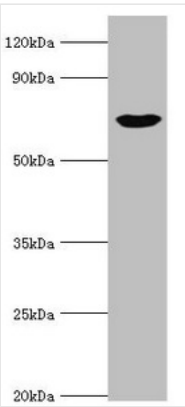
CATALOG # AAA118716	HOST Rabbit	REACTIVITY Human, Mouse	APPLICATIONS Western Blot, ELISA
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PRODUCT SYNONYMS

cGMP-dependent protein kinase 1; Polyclonal Antibody; Rabbit anti-human cGMP-dependent protein kinase 1 polyclonal Antibody(PRKG1); cGMP-dependent protein kinase 1 (cGK 1) (cGK1) (EC 2.7.11.12) (cGMPdependent protein kinase I) (cGKI); PRKG1; PRKG1B; PRKGR1A; PRKGR1B; anti-PRKG1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Purity/Purification	Antigen Affinity Purified
Form/Format	Liquid; PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Sequence Length	671
Applicable Applications for anti-PRKG1 antibody	WB (Western Blot), ELISA
Conjugate	Non-conjugated
Immunogen	Recombinant Human cGMP-dependent protein kinase 1 protein (1-300AA)
Immunogen Species	Homo sapiens (Human)
Research Area	Cardiovascular
Target Names	PRKG1
Preparation and Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.



WB (Western Blot)
Western blotAll lanes: cGMP-dependent protein kinase 1 antibody at 3ug/ml+mouse lung tissueSecondaryGoat polyclonal to rabbit at 1/10000 dilutionPredicted band size: 77, 78, 45 kDaObserved band size: 77 kDa

ADDITIONAL INFORMATION

Related Product Information for anti-PRKG1 antibody	Serine/threonine protein kinase that acts as key mediator of the nitric oxide (NO)/cGMP signaling pathway. GMP binding activates PRKG1, which phosphorylates serines and threonines on many cellular proteins. Numerous protein targets for PRKG1 phosphorylation are implicated in modulating cellular calcium, but the contribution of each of these targets may vary substantially among cell types. Proteins that are phosphorylated by PRKG1 regulate platelet activation and adhesion, smooth muscle contraction, cardiac function, gene expression, feedback of the NO-signaling pathway, and other processes involved in several aspects of the CNS like axon guidance, hippocampal and cerebellar learning, circadian rhythm and nociception. Smooth muscle relaxation is mediated through lowering of intracellular free calcium, by desensitization of contractile proteins to calcium, and by decrease in the contractile state of smooth muscle or in platelet activation. Regulates intracellular calcium levels via several pathways: phosphorylates MRV1/IRAG and inhibits IP3-induced Ca2+ release from intracellular stores, phosphorylation of KCNMA1 (BKCa) channels decreases intracellular Ca2+ levels, which leads to increased opening of this channel. PRKG1 phosphorylates the canonical transient receptor potential channel (TRPC) family which inactivates the associated inward calcium current. Another mode of action of NO/cGMP/PKG1 signaling involves PKGI-mediated inactivation of the Ras homolog gene family member A (RhoA). Phosphorylation of RHOA by PRKG1 blocks the action of this protein in myriad processes: regulation of RHOA translocation; decreasing contraction; controlling vesicle trafficking, reduction of myosin light chain phosphorylation resulting in vasorelaxation. Activation of PRKG1 by NO signaling alters also gene expression in a number of tissues. In smooth muscle cells, increased cGMP and PRKG1 activity influence expression of smooth muscle-specific contractile proteins, levels of proteins in the NO/cGMP signaling pathway, down-regulation of the matrix proteins osteopontin and thrombospondin-1 to limit smooth muscle cell migration and phenotype. Regulates vasodilator-stimulated phosphoprotein (VASP) functions in platelets and smooth muscle.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	148612818
NCBI GeneID	5592
NCBI Accession #	NP_001091982.1
NCBI GenBank Nucleotide #	NM_001098512.2
UniProt Accession #	Q13976; P14619; Q5JP05; Q5JSJ6; Q6P5T7; A5YM56; B3KSF3; E2PU10
NCBI Official Full Name	cGMP-dependent protein kinase 1 isoform 1
NCBI Official Synonym Full Names	protein kinase, cGMP-dependent, type I
NCBI Official Symbol	PRKG1
NCBI Official Synonym Symbols	PKG; cGK; AAT8; cGK1; CGKI; cGK 1; PRKG1B; PRKGR1B; cGKI-BETA; cGKI-alpha

NCBI Protein Information	cGMP-dependent protein kinase 1
UniProt Protein Name	cGMP-dependent protein kinase 1
UniProt Gene Name	PRKG1
UniProt Synonym Gene Names	PRKG1B; PRKGR1A; PRKGR1B; cGK 1; cGK1; cGKI
UniProt Entry Name	KGP1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/cgmp-dependent-protein-kinase-1-antibody-western-blot-elisa/118716>