Active Recombinant Human PRKG1, His-tagged

Cat. No. PRKG1-563H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human PRKG1was expressed by baculovirus in*Sf9 insect cell*susing an N-terminal His tag. MW=80kDa.
Species	Human
Source	Sf9 Cells
Description	PRKG1 is a homodimer, with each monomer containing a regulatory cGMP-binding domain and a catalytic domain. By Northern blot analysis PRKG1 was shown to be expressed at highest levels in bladder, uterus, adrenal gland, and fallopian tube. PRKG1 plays an important stimulatory role in platelet activation. Expression of recombinant PRKG1 in a reconstituted cell model enhanced von Willebrand factor-induced activation of the platelet integrin alpha-IIb/beta-3.
Purity	60%.
Specific Activity	579 pmoles/min/μg. Enzyme reaction is conducted in a buffer containing 50 mM HEPES (pH7.5), 10 mM MgCl2, 1 mM EGTA, 200 μM ATP, 0.01% Brij-35, and 2 μM substrate (SER/THR 14, Invitrogen) at room temperature for 1 hour.
Application	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.
Formulated In	25 mM Tris-HCl, pH 7.5, 100 mM NaCl, 0.05% Tween-20, 10% glycerol, and 1 mM DTT.

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Stability	>12 months at –80°C.

GENE INFORMATION

Gene Name	PRKG1 protein kinase, cGMP-dependent, type I [Homo sapiens]
Synonyms	PRKG1; protein kinase, cGMP-dependent, type I; PGK; PKG; CGKI; PRKG1B; PRKGR1B; FLJ36117; MGC71944; cGKI-BETA; cGKI-alpha; DKFZp686K042; protein kinase, cGMP-dependent, regulatory, type I, beta; protein kinase, cGMP-dependent, type I; EC 2.7.11.12
Gene ID	5592
mRNA Refseq	NM_001098512
Protein Refseq	NP_001091982
MIM	176894
UniProt ID	Q13976
Chromosome Location	10q11.2
Pathway	Gap junction; Long-term depression; Olfactory transduction; Vascular smooth muscle contraction
Function	ATP binding; cGMP binding; cGMP-dependent protein kinase activity; nucleotide binding; protein serine/threonine kinase activity; transferase activity

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