

Recombinant Human PRKG1 Protein (His Tag)

Catalog No. PKSH032242

Note: Centrifuge before opening to ensure complete recovery of vial contents.

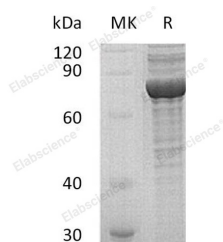
Description

Synonyms	cGMP-Dependent Protein Kinase 1;cGK 1;cGK1;cGMP-Dependent Protein Kinase I;cGKI;PRKG1;PRKG1B;PRKGR1A;PRKGR1B
Species	Human
Expression Host	HEK293 Cells
Sequence	Gly2-Pro686
Accession	Q13976-2
Calculated Molecular Weight	78.8 kDa
Observed molecular weight	75 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.
Formulation	Supplied as a 0.2 µm filtered solution of 20mM Tris-HCl, 6% Sucrose, 4% Mannitol, 0.05% Tween 80, pH8.0.
Reconstitution	Not Applicable

Data



> 95 % as determined by reducing SDS-PAGE.

Background

cGMP-Dependent Protein Kinase 1 (PRKG1) belongs to the protein kinase superfamily and AGC Ser/Thr protein kinase family. PRKG1 contains one AGC-kinase C-terminal domain, two cyclic nucleotide-binding domains, and one protein kinase domain. PRKG1 is mainly expressed in the lung and placenta. PRKG1 acts as a key mediator of the nitric oxide (NO)/cGMP signaling pathway. PRKG1 can phosphorylate many proteins that regulate platelet activation and adhesion,

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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.