Recombinant Human PRKG1 Kinase

Catalog No.: RP03421LQ

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Sequence Information

Species
Human

Gene ID
5592

Swiss Prot
Q13976

Tags
N-GST

Synonyms
PRKG1; PRKG1B; PRKGR1A; PRKGR1B; cGK 1; cGK1; cGMP-dependent protein kinase 1

Product Information

Source
Baculovirus-Insect Cells

Purification
≥ 90 % as determined by SDS-PAGE;≥ 90 % as determined by HPLC.

Calculated MW
104.3 kDa

Observed MW
85-100 kDa

Endotoxin
< 1 EU/μg of the protein by LAL method.

Formulation
Supplied as a 0.22 μm filtered solution in 50 mM Tris, 150 mM NaCl, 1 mM DTT and 5% glycerol. (pH 7.5). Contact us for customized product form or formulation.

Reconstitution
Please use running water to thaw it quickly.

Background

Protein Kinase G1 (PRKG1) is a key enzyme in the family of cGMP-dependent protein kinases. It is critical for mediating cellular responses to the second messenger cGMP, which is a key signaling molecule involved in many physiological processes. Many cellular activities are regulated by the serine /threonine kinase PRKG1, which phosphorylates target proteins in response to intracellular cGMP levels. PRKG1 has a modular structure that consists of several functional domains. The key domains are an N-terminal regulatory domain with two tandem cGMP-binding domains (CNB-A and CNB-B), a hinge region, a catalytic domain that is responsible for kinase activity, and a C-terminal autoinhibitory domain. PRKG1 dysregulation has been linked to a variety of disease states. Variations in PRKG1 activity have been connected to high blood pressure and atherosclerosis, two cardiovascular disorders. Additionally, PRKG1 dysfunction has been linked to neurological disorders such as migraine and neurodegenerative diseases.

Basic Information

Description
Recombinant Human PRKG1 Kinase is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Met1-Phe686) of Human PRKG1 (Accession #Q13976) fused with a N-GST tag.

Activity
The activity of PRKG1 is based on the MSA technology, and the content and ratio of the substrate and the product are directly separated and detected in real time and dynamically by the different migration rates of the substrate and the product after the enzymatic reaction.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -70℃

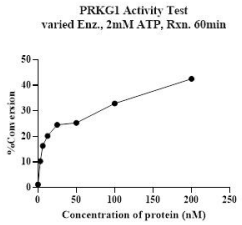
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

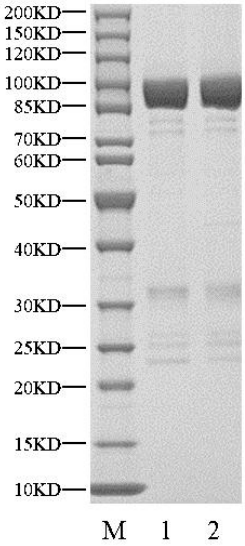
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Please visit http://abclonal.com for a complete listing of recommended products.

Validation Data



The activity of PRKG1 is based on the MSA technology, and the content and ratio of the substrate and the product are directly separated and detected in real time and dynamically by the different migration rates of the substrate and the product after the enzymatic reaction.



Recombinant Human PRKG1 Kinase was resolved with SDS-PAGE under reducing (Lane 1) and non-reducing (Lane 2) conditions.