

GRK2 Protein, Human, Recombinant (GST)

General Information

Protein Construction:	Recombinant full length human GRK2 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
Species:	Human
Expression Host:	Baculovirus-Insect Cells
Accession:	P25098
Molecular Weight:	~102 kDa

QC Testing

Biological Activity:	The specific activity of GRK2 was determined to be 4.2-4.8 nmol /min/mg by ADP-Glo kinase assay.
Purity:	>95% as determined by SDS-PAGE.
Formulation:	Supplied as sterile 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, 25% glycerol.

Preparation and Storage

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

Enzymes are highly recommended to be shipped at frozen temperature with dry ice. Shipment made at ambient temperature may seriously affect the activity of the ordered products.

Protein Background

G-protein coupled receptor kinase 2 (GRK2), also referred as Adrenergic, beta, receptor kinase 1 (ADRBK1), is a ubiquitous member of the G protein-coupled receptor kinase (GRK) family that appears to play a central, integrative role in signal transduction cascades. GRK2 can phosphorylate a growing number of non-GPCR substrates and associate with a variety of proteins related to signal transduction, thus suggesting that this kinase could also have diverse 'effector' functions. GRK2 has been reported to interact with a variety of signal transduction proteins related to cell migration such as MEK, Akt, PI3Kgamma or GIT. Interestingly, the levels of expression and activity of this kinase are altered in a number of inflammatory disorders (as rheumatoid arthritis or multiple sclerosis), thus suggesting that GRK2 may play an important role in the onset or development of these pathologies. The important physiological function of GRK2 as a modulator of the efficacy of GPCR signal transduction systems is exemplified by its relevance in cardiovascular physiopathology as well as by its emerging role in the regulation of chemokine receptors. Besides its canonical role in the modulation of the signalling mediated by many G protein-coupled receptors (GPCR), this protein can display a very complex network of functional interactions with a variety of signal transduction partners, in a stimulus, cell type, or context-specific

way.

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