Data Sheet (Cat.No.TMPY-04409)

TargetMol

GRK6 Protein, Human, Recombinant (His & GST)

General Information

Synonyms: G protein-coupled receptor kinase 6;GPRK6

Protein Construction: A DNA sequence encoding the human GRK6 isofrom B (P43250-2) (Met 1-Arg 589) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus. Predicted N terminal: Met

Species: Human

Expression Host: Baculovirus Insect Cells

Accession: P43250-2

Molecular Weight: 95.1 kDa (predicted); 85 kDa (reducing conditions)

QC Testing

Biological Activity: The specific activity was determined to be 7 nmol/min/mg using casein as substrate.

Purity: > 93 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU/μg of the protein as determined by the LAL method.

Formulation: Supplied as sterile 20 mM Tris, 500 mM NaCl, 2 mM GSH, 0.5 mM PMSF, pH 7.4.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store the product under sterile conditions at -20°C to -80°C. Samples are stable for up to 12 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

Proteins are shipped with blue ice.

Protein Background

G protein-coupled receptor kinase 6, also known as G protein-coupled receptor kinase GRK6, GRK6, and GPRK6, is a lipid-anchor protein that belongs to the protein kinase superfamily, AGC Ser/Thr protein kinase family, and GPRK subfamily. GRK6 / GPRK6 contains one AGC-kinase C-terminal domain, one protein kinase domain, and one RGS domain. This protein phosphorylates the activated forms of G protein-coupled receptors thus initiating their deactivation. Several transcript variants encoding different isoforms have been described. GRK6 / GPRK6 is widely expressed. GRK6 / GPRK6 silencing causes suppression of signal transducer and activator of transcription 3 (STAT3) phosphorylation associated with a reduction in MCL1 levels and phosphorylation, illustrating a potent mechanism for the cytotoxicity of GRK6 inhibition in multiple myeloma (MM) tumor cells. GRK6 also appears to be

involved in responses to morphine. Inhibition of GRK6 represents a uniquely targeted novel therapeutic strategy in human multiple myeloma.

Reference

Ghadessy,R.S. et al., 2003, Br J Pharmacol 138 (4):660-70.
Murga,C. et al., 2009, Brain Behav Immun. 23 (1):16-7.
Tiedemann,R.E. et al., 2010, Blood 115 (8):1594-604.
Ahmed,M.R. et al., 2010, Sci Transl Med 2 (28): 28ra28.

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