Active Recombinant Human GRK1, GST-tagged

Cat. No. GRK1-1409H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Full-length recombinant human GRK1 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
Species	Human
Source	Sf9 Cells
ProteinLength	Full length
Description	GRK1 is a member of the guanine nucleotide-binding protein (G protein)-coupled receptor kinase subfamily of the Ser/Thr protein kinases. GRK1 mediates rapid desensitization of rod photoreceptors to light by catalyzing phosphorylation of the visual pigment rhodopsin which leads to its deactivation. Defects in GRK1 are known to cause Oguchi disease 2 (also known as stationary night blindness Oguchi type-2). GRK1 can be phosphorylated by PKA and this reduces the ability of GRK1 to phosphorylate rhodopsin in vitro. It is speculated that phosphorylation of GRK1 by PKA in vivo occurs in the dark when cAMP levels in photoreceptor cells are elevated.
Form	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Bio-activity	4.3 nmol/min/mg
Molecular Mass	~95 kDa

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Purity	>95%
Applications	Kinase Assay, Western Blot
Storage	Store at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid freeze/thaw cycles.
Concentration	0.1μg/μl

GENE INFORMATION

Gene Name	GRK1 G protein-coupled receptor kinase 1 [Homo sapiens]
Official Symbol	GRK1
Synonyms	GRK1; G protein-coupled receptor kinase 1; rhodopsin kinase , RHOK; rhodopsin kinase; GPRK1; RK; RHOK;
Gene ID	6011
mRNA Refseq	NM_002929
Protein Refseq	NP_002920
MIM	180381
UniProt ID	Q15835
Chromosome Location	13q34
Pathway	Chemokine signaling pathway, organism-specific biosystem; Chemokine signaling

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	pathway, conserved biosystem; Endocytosis, organism-specific biosystem; Endocytosis, conserved biosystem; Phototransduction, organism-specific biosystem; Phototransduction, conserved biosystem; Visual signal transduction: Cones, organism-specific biosystem;
Function	ATP binding; G-protein coupled receptor kinase activity; nucleotide binding; protein kinase activity; rhodopsin kinase activity;

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