

## Active Recombinant Human GRK1, GST-tagged

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

### SPECIFICATION

<b>Product Overview</b>	Full-length recombinant human GRK1 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
<b>Species</b>	Human
<b>Source</b>	Sf9 Cells
<b>ProteinLength</b>	Full length
<b>Description</b>	<p>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.</p>
<b>Form</b>	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.
<b>Bio-activity</b>	4.3 nmol/min/mg
<b>Molecular Mass</b>	~95 kDa

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<b>Purity</b>	>95%
<b>Applications</b>	Kinase Assay, Western Blot
<b>Storage</b>	Store at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid freeze/thaw cycles.
<b>Concentration</b>	0.1 µg/µl
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	GRK1 G protein-coupled receptor kinase 1 [ Homo sapiens ]
<b>Official Symbol</b>	GRK1
<b>Synonyms</b>	GRK1; G protein-coupled receptor kinase 1; rhodopsin kinase , RHOK; rhodopsin kinase; GPRK1; RK; RHOK;
<b>Gene ID</b>	6011
<b>mRNA Refseq</b>	NM_002929
<b>Protein Refseq</b>	NP_002920
<b>MIM</b>	180381
<b>UniProt ID</b>	Q15835
<b>Chromosome Location</b>	13q34
<b>Pathway</b>	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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