

GRK5, Active recombinant protein
GRK, G protein-coupled receptor kinase 5
Catalog # PBV11285r**Specification**

GRK5, Active recombinant protein - Product info

Primary Accession	P34947
Concentration	0.1
Calculated MW	~95 kDa. (NT GST tag) KDa

GRK5, Active recombinant protein - Additional Info

Gene ID	2869
Gene Symbol	GRK5
Other Names	
GRK, G protein-coupled receptor kinase 5	
Source	Baculovirus (Sf9 insect cells)
Assay&Purity	SDS-PAGE; ≥95%
Assay2&Purity2	HPLC;
Recombinant	Yes
Format	
Liquid	

Storage

-80°C; Recombinant protein in storage buffer (50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 0.25 mM DTT, 0.1 mM EGTA, 0.1 mM EDTA, 0.1 mM PMSF, 25% glycerol).

GRK5, Active recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

GRK5, Active recombinant protein - Images**GRK5, Active recombinant protein - Background**

G protein-coupled receptor kinases (GRKs) play an important role in phosphorylating and regulating the activity of a variety of G protein-coupled receptors. Haribabu and Snyderman (1) identified GRK5 and GRK6. GRK5 is a member of the guanine nucleotide-binding protein (G protein)-coupled receptor kinase subfamily of the Ser/Thr protein kinase family. It phosphorylates

the activated forms of G protein-coupled receptors thus initiating their deactivation. It has also been shown to play a role in regulating the motility of polymorphonuclear leukocytes (PMNs). Bullrich (2) used a rodent-human hybrid panel to map 2 newly identified members of the GRK family: GPRK5 and GPRK6 to 10q24-qter and 5q35, respectively. Desensitization of G protein-coupled receptors regulates the number of polymorphonuclear leukocytes (PMNs), as well as their motility and ability to stop upon contact with pathogens or target cells, and this desensitization is mediated by GRKs (3). MIP2 induces GRK2 and GRK5 expression in PMNs through PI3KG signaling. However, lipopolysaccharide (LPS), acting through TLR4 signaling, mediated through MEK1 /MEK2, transcriptionally downregulates expression of GRK2 and GRK5 in response to MIP2, which decreases chemokine receptor desensitization and markedly augments PMN migration. Thus, LPS-activated TLR4 signaling regulates PMN migration by modulating the expression of chemokine receptors in a GRK2- and GRK5-dependent manner. Recombinant full-length human GRK5 was expressed by baculovirus in Sf9 insect cells using a N-terminal GST tag.

GRK5, Active recombinant protein - References

- Kunapuli P., et al. Proc. Natl. Acad. Sci. U.S.A. 90:5588-5592(1993).
Deloukas P., et al. Nature 429:375-381(2004).
Mural R.J., et al. Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Ungerer M., et al. Circulation 87:454-463(1993).
Kunapuli P., et al. J. Biol. Chem. 269:10209-10212(1994).