



## Rabbit Anti-GRK5 antibody

SL7540R

<b>Product Name:</b>	GRK5
<b>Chinese Name:</b>	G protein-coupled receptor 激酶5 抗体
<b>Alias:</b>	G protein coupled receptor kinase 5; G protein coupled receptor kinase GRK5; G protein-coupled receptor kinase 5; G protein-coupled receptor kinase GRK5; GPRK5; GRK5; GRK5 HUMAN.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Dog,Pig,Cow,Horse,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	66kDa
<b>Cellular localization:</b>	The nucleuscytoplasmicThe cell membrane
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human GRK5:181-290/590
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	This gene encodes a member of the guanine nucleotide-binding protein (G protein)-coupled receptor kinase subfamily of the Ser/Thr protein kinase family. The protein 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). [provided by RefSeq, Jul 2008].

**Function:**

Serine/threonine kinase that phosphorylates preferentially the activated forms of a variety of G-protein-coupled receptors (GPCRs). Such receptor phosphorylation initiates beta-arrestin-mediated receptor desensitization, internalization, and signaling events leading to their down-regulation. Phosphorylates a variety of GPCRs, including adrenergic receptors, muscarinic acetylcholine receptors (more specifically Gi-coupled M2/M4 subtypes), dopamine receptors and opioid receptors. In addition to GPCRs, also phosphorylates various substrates: Hsc70-interacting protein/ST13, TP53/p53, HDAC5, and arrestin-1/ARRB1. Phosphorylation of ARRB1 by GRK5 inhibits G-protein independent MAPK1/MAPK3 signaling downstream of 5HT4-receptors. Phosphorylation of HDAC5, a repressor of myocyte enhancer factor 2 (MEF2) leading to nuclear export of HDAC5 and allowing MEF2-mediated transcription. Phosphorylation of TP53/p53, a crucial tumor suppressor, inhibits TP53/p53-mediated apoptosis. Phosphorylation of ST13 regulates internalization of the chemokine receptor. Phosphorylates rhodopsin (RHO) (in vitro) and a non G-protein-coupled receptor, LRP6 during Wnt signaling (in vitro).

**Subunit:**

Interacts with ST13 (via the C-terminus 303-319 AA). Interacts with TP53/p53. Interacts with HTR4 (via C-terminus 330-346 AA); this interaction is promoted by 5-HT (serotonin). Interacts with HDAC5.

**Subcellular Location:**

Cytoplasm. Nucleus. Cell membrane; Peripheral membrane protein.  
Note=Predominantly localized at the plasma membrane; targeted to the cell surface through the interaction with phospholipids. Nucleus localization is regulated in a GPCR and Ca(2+)/calmodulin-dependent fashion.

**Tissue Specificity:**

Highest levels in heart, placenta, lung, skeletal muscle, brain, liver, pancreas, kidney.

**Post-translational modifications:**

Autophosphorylated. Autophosphorylation may play a critical role in the regulation of GRK5 kinase activity.

**Similarity:**

Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. GPRK subfamily.

Contains 1 AGC-kinase C-terminal domain.

Contains 1 protein kinase domain.

Contains 1 RGS domain.

**SWISS:**

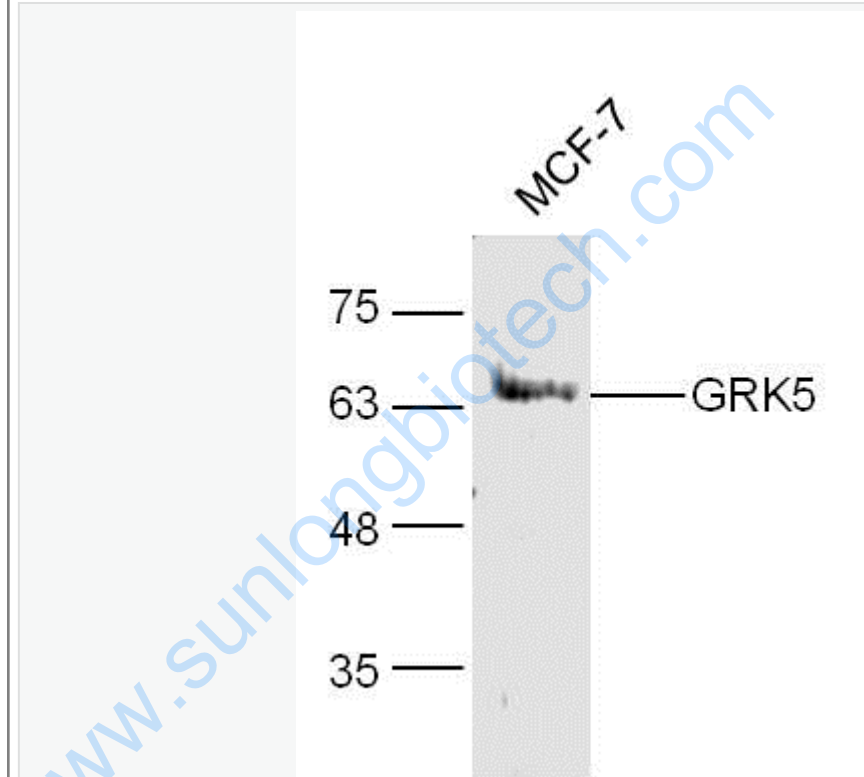
P34947

**Gene ID:**  
2869

**Database links:**  
UniProtKB/Swiss-Prot: P34947.1

**Important Note:**  
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**Picture:**



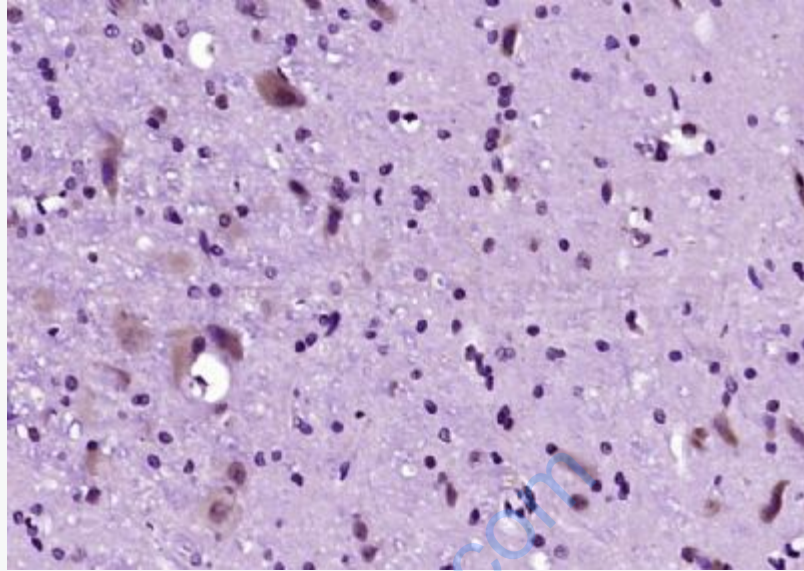
Sample: MCF-7 Cell (Human) Lysate at 40 ug

Primary: Anti-GRK5 (SL7540R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 66 kD

Observed band size: 66 kD



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GRK5) Polyclonal Antibody, Unconjugated (SL7540R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.