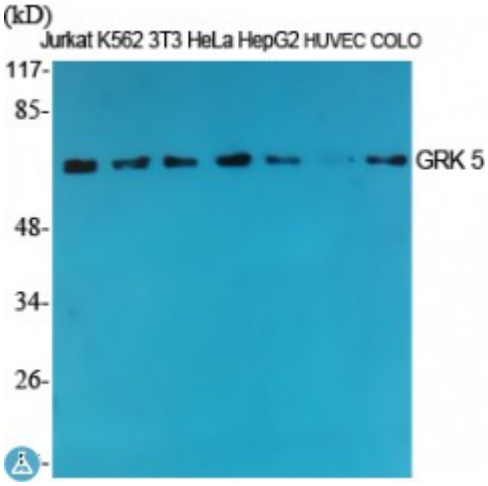
Anti-GRK 5 antibody



Description	Rabbit polyclonal to GRK 5.

Model	STJ93435
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IHC, WB
Immunogen	Synthesized peptide derived from human GRK 5
Immunogen Region	320-400 aa, Internal
Gene ID	2869
Gene Symbol	GRK5
Dilution range	WB 1:500-1:2000IHC 1:100-1:300ELISA 1:10000
Specificity	GRK 5 Polyclonal Antibody detects endogenous levels of GRK 5 protein.
Tissue Specificity	Highest levels in heart, placenta, lung > skeletal muscle > brain, liver, pancreas > kidney.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	G protein-coupled receptor kinase 5 G protein-coupled receptor kinase GRK5
Molecular Weight	68 kDa
Clonality	Polyclonal

Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:4544OMIM:600870
Alternative Names	G protein-coupled receptor kinase 5 G protein-coupled receptor kinase GRK5
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).
Cellular Localization	Cytoplasm. Nucleus. Cell membrane. Peripheral membrane protein. 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.
Post-translational Modifications	Autophosphorylated. Autophosphorylation may play a critical role in the regulation of GRK5 kinase activity.