

Anti-GRK5 Picoband Antibody

Catalog # ABO12394

Product Information

Application	WB, IHC-P
Primary Accession	P34947
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for G protein-coupled receptor kinase 5 (GRK5) detection. Tested with WB, IHC-P in Human;Rat;Mouse.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	2869
Other Names	G protein-coupled receptor kinase 5, 2.7.11.16, G protein-coupled receptor kinase GRK5, GRK5, GPRK5
Calculated MW	67787
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 μ g/ml, Human, Rat
Subcellular 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.
Tissue Specificity	Highest levels in heart, placenta, lung > skeletal muscle > brain, liver, pancreas > kidney. .
Source	Eukaryota
Protein Name	G protein-coupled receptor kinase 5
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human GRK5 (393-429aa KREEVDRRVLETEEVYSHKFSEEAKSICKMLLTDAK), different from the related mouse and rat sequences by three amino acids.

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Protein Information

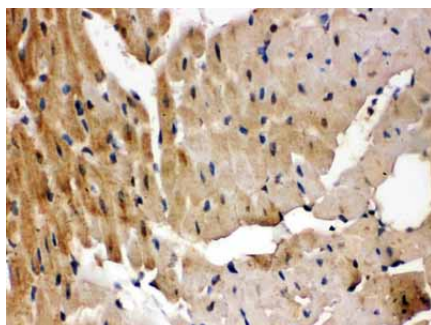
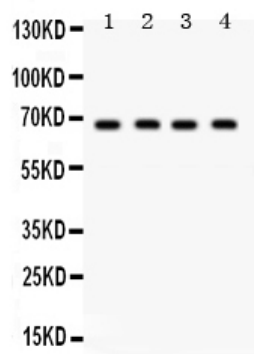
Name	GRK5
Synonyms	GPRK5
Function	Serine/threonine kinase that phosphorylates preferentially the activated forms of a variety of G protein-coupled receptors (GPCRs). Such receptor phosphorylation initiates beta-arrestin-mediated receptor desensitization, internalization, and signaling events leading 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 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 Location	Highest levels in heart, placenta, lung > skeletal muscle > brain, liver, pancreas > kidney.

Background

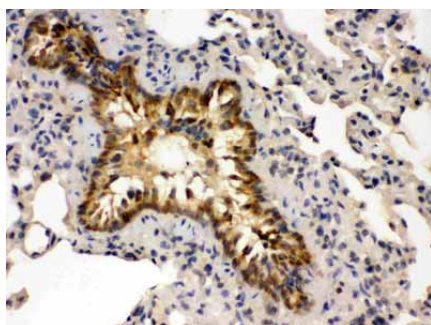
G protein-coupled receptor kinase 5 is an enzyme that in humans is encoded by the GRK5 gene. It is mapped to 10q26.11. This gene encodes a member of the guanine nucleotide-binding protein (G protein)-coupled receptor kinase subfamily of the Ser/Thr protein kinase family. The protein phosphorylates the 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).

Images

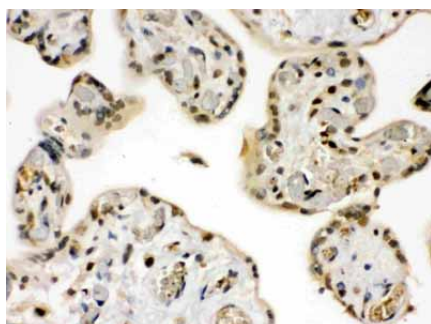
Anti- GRK5 Picoband antibody, ABO12394, Western blotting
 All lanes: Anti GRK5 (ABO12394) at 0.5ug/ml
 Lane 1: Rat Lung Tissue Lysate at 50ug
 Lane 2: HELA Whole Cell Lysate at 40ug
 Lane 3: HEPG2 Whole Cell Lysate at 40ug
 Lane 4: SMMC Whole Cell Lysate at 40ug
 Predicted bind size: 68KD
 Observed bind size: 68KD



Anti- GRK5 Picoband antibody, ABO12394,IHC(P)IHC(P):
Rat Cardiac Muscle Tissue



Anti- GRK5 Picoband antibody, ABO12394,IHC(P)IHC(P):
Mouse Lung Tissue



Anti- GRK5 Picoband antibody, ABO12394,IHC(P)IHC(P):
Human Placenta Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.