

Rabbit GRK2 Polyclonal Antibody | anti-GRK2 antibody

GRK2 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326304	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

GRK2; Polyclonal Antibody; GRK2 Antibody; ADRBK1; Adrenergic beta receptor kinase 1; ARBK1_HUMAN; BARK; BARK1; Beta adrenergic receptor kinase 1; Beta ARK 1; Beta ARK1; Beta-adrenergic receptor kinase 1; Beta-ARK-1; FLJ16718; G protein coupled receptor kinase 2; G-protein coupled receptor kinase 2; anti-GRK2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	ADRBK1 antibody detects endogenous levels of total ADRBK1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	689
Applicable Applications for anti-GRK2 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ADRBK1
Subcellular Location	Plasma Membrane
Tissue Specificity	Expressed in peripheral blood leukocytes.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Dog, Chicken
Similarity	Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Dog (100%), Chicken (90%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)

Western blot analysis of extracts of Jurkat, using ADRBK1 antibody. The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)

AAA326304 staining Hela cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



IHC (Immunohistochemistry)

AAA326304 at 1/100 staining Human liver cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-GRK2 antibody	Description: G-protein-coupled receptor kinase 2 (GRK2), also known as beta-adrenergic receptor kinase 1 (beta-ARK1), is a member of the GRK family, which phosphorylates the activated form of G-protein-coupled receptors (GPCRs) and initiates the desensitization process of GPCR (1). GRK2 kinase activity and cellular localization are tightly regulated by interactions with activated receptors, G-beta and G-gamma subunits, adaptor proteins, phospholipids, caveolin and calmodulin, as well as by phosphorylation (1). PKC phosphorylation enhances GRK2 activity by promoting its membrane localization and by abolishing the inhibitory association of calmodulin (2, 3). PKA phosphorylates GRK2 at Ser685, which facilitates the association of GRK2 with a beta-adrenergic receptor (4). Erk inhibits GRK2 activity via phosphorylation at Ser670 (5). Src phosphorylates GRK2 at multiple tyrosine residues (Tyr13, 86 and 92), which activates GRK2 activity and promotes GRK2 degradation (6, 7). Function: Specifically phosphorylates the agonist-occupied form of the beta-adrenergic and closely related receptors, probably inducing a desensitization of them. Key regulator of LPAR1 signaling. Competes with RALA for binding to LPAR1 thus affecting the signaling properties of the receptor. Desensitizes LPAR1 and LPAR2 in a phosphorylation-independent manner (PubMed:19306925, PubMed:19715378). Positively regulates ciliary smoothened (SMO)-dependent Hedgehog (Hh) signaling pathway by facilitating the trafficking of SMO into the cilium and the stimulation of SMO activity (By similarity). Subunit Structure: Interacts with GIT1 (By similarity). Interacts with, and phosphorylates chemokine-stimulated CCR5 (PubMed:10085131). Interacts with ARRB1 (PubMed:9501202). Interacts with LPAR1 and LPAR2 (PubMed:19306925). Interacts with RALA in response to LPAR1 activation (PubMed:19306925). ADRBK1 and RALA mutually inhibit each other's binding to LPAR1 (PubMed:19306925). Interacts with ADRB2 (PubMed:19715378). Similarity: The PH domain binds anionic phospholipids and helps recruiting ADRBK1 from the cytoplasm to plasma membrane close to activated receptors. It mediates binding to G protein beta and gamma subunits, competing with G-alpha subunits and other G-betagamma effectors. Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. GPRK subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	148539876
NCBI GeneID	156
NCBI Accession #	NP_001610.2
NCBI GenBank Nucleotide #	NM_001619.4
UniProt Accession #	P25098; Q13837; Q6GTT3; B0ZBE1

Molecular Weight	Observed: 80 kDa Predicted: 80 kDa
NCBI Official Full Name	beta-adrenergic receptor kinase 1
NCBI Official Synonym Full Names	G protein-coupled receptor kinase 2
NCBI Official Symbol	GRK2
NCBI Official Synonym Symbols	BARK1; ADRBK1; BETA-ARK1
NCBI Protein Information	beta-adrenergic receptor kinase 1
UniProt Protein Name	Beta-adrenergic receptor kinase 1
UniProt Gene Name	GRK2
UniProt Synonym Gene Names	ADRBK1; BARK; BARK1; Beta-ARK-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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