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Goat Anti-BARK1 / GRK2 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1142a

Specification

Goat Anti-BARK1 / GRK2 Antibody - Product Information

Application	**WB, E**
Primary Accession	P25098
Other Accession	NP_001610, 156, 110355 (mouse)
Reactivity	**Human**
Predicted	**Mouse, Rat, Pig, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**79574**

Goat Anti-BARK1 / GRK2 Antibody - Additional Information

Gene ID 156

Other Names
Beta-adrenergic receptor kinase 1, Beta-ARK-1, 2.7.11.15, G-protein coupled receptor kinase 2, ADRBK1, BARK, BARK1, GRK2

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-BARK1 / GRK2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-BARK1 / GRK2 Antibody - Protein Information

Name GRK2 (HGNC:289)

Synonyms ADRBK1, BARK, BARK1

Function
Specifically phosphorylates the agonist-occupied form of the beta-adrenergic and closely related receptors, probably inducing a desensitization of them (PubMed:19715378). Key regulator of LPAR1 signaling (PubMed:19306925). Competes with RALA for binding to LPAR1 thus affecting the signaling properties of the receptor (PubMed:19306925). Desensitizes LPAR1 and LPAR2 in a phosphorylation-independent manner (PubMed:19306925). 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). Inhibits relaxation of airway smooth muscle in response to blue light (PubMed:30284927).

Cellular Location
Cytoplasm {ECO:0000250|UniProtKB:P26817}. Cell membrane {ECO:0000250|UniProtKB:P21146}. Postsynapse {ECO:0000250|UniProtKB:P26817}. Presynapse {ECO:0000250|UniProtKB:P26817}

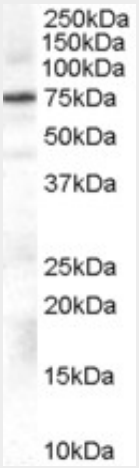
Tissue Location
Expressed in peripheral blood leukocytes.

Goat Anti-BARK1 / GRK2 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-BARK1 / GRK2 Antibody - Images



AF1142a (0.3 µg/ml) staining of Daudi cell lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

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Goat Anti-BARK1 / GRK2 Antibody - Background

The product of this gene phosphorylates the beta-2-adrenergic receptor and appears to mediate agonist-specific desensitization observed at high agonist concentrations. This protein is an ubiquitous cytosolic enzyme that specifically phosphorylates the activated form of the beta-adrenergic and related G-protein-coupled receptors. Abnormal coupling of beta-adrenergic receptor to G protein is involved in the pathogenesis of the failing heart.

Goat Anti-BARK1 / GRK2 Antibody - References

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.
Association study of 182 candidate genes in anorexia nervosa. Pinheiro AP, et al. Am J Med Genet B Neuropsychiatr Genet, 2010 Jul. PMID 20468064.
Internalization of the human nicotinic acid receptor GPR109A is regulated by G(i), GRK2, and arrestin3. Li G, et al. J Biol Chem, 2010 Jul 16. PMID 20460384.
Dynamic changes in lymphocyte GRK2 levels in cardiac transplant patients: a biomarker for left ventricular function. Bonita RE, et al. Clin Transl Sci, 2010 Feb. PMID 20443948.
Enhanced GRK2 expression and desensitization of betaAR vasodilatation in hypertensive patients. Izzo R, et al. Clin Transl Sci, 2008 Dec. PMID 20443852.