10320 Camino Santa Fe, Suite G
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GRK2 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1550a

Specification

GRK2 Antibody - Product Information

Application	**WB, IHC, ICC, E**
Primary Accession	P25098
Reactivity	**Human, Mouse, Rat, Monkey**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**80kDa KDa**

Description
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. (provided by RefSeq)Tissue specificity: Expressed in peripheral blood leukocytes

Immunogen
Purified recombinant fragment of human GRK2 expressed in E. Coli.

Formulation
Ascitic fluid containing 0.03% sodium azide.

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~~1/500 - 1/2000
IHC~~1/500 - 1/2000
ICC~~N/A
E~~1/10000

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
GRK2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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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).

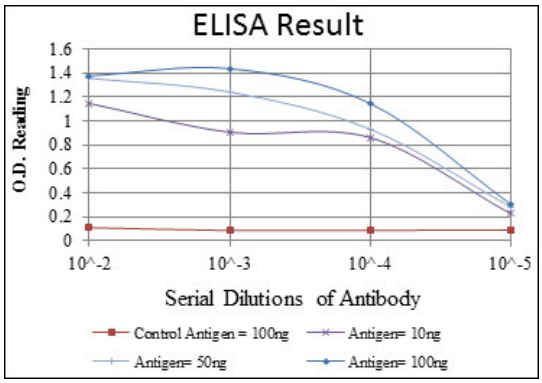
Cellular Location
Cytoplasm {ECO:0000250|UniProtKB:P26817}. Cell membrane {ECO:0000250|UniProtKB:P21146}. Postsynapse {ECO:0000250|UniProtKB:P26817}. Presynapse {ECO:0000250|UniProtKB:P26817}

Tissue Location
Expressed in peripheral blood leukocytes.

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



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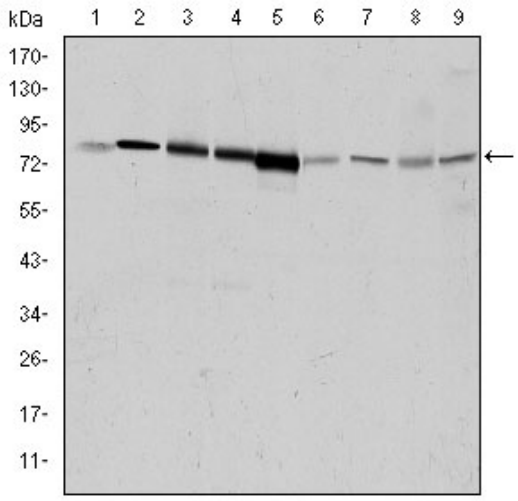

Figure 1: Western blot analysis using GRK2 mouse mAb against Hela (1), Jurkat (2), MOLT4 (3), RAJI (4), THP-1 (5), L1210 (6), Cos7 (7), PC-12 (8), and NIH/3T3 (9) cell lysate.

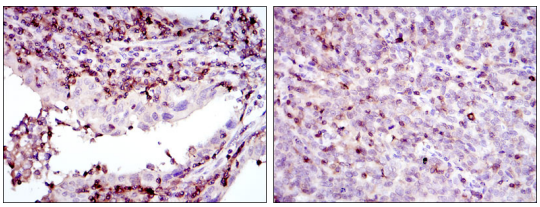

Figure 2: Immunohistochemical analysis of paraffin-embedded endometrial cancer tissues (left) and cervical cancer tissues (right) using GRK2 mouse mAb with DAB staining.

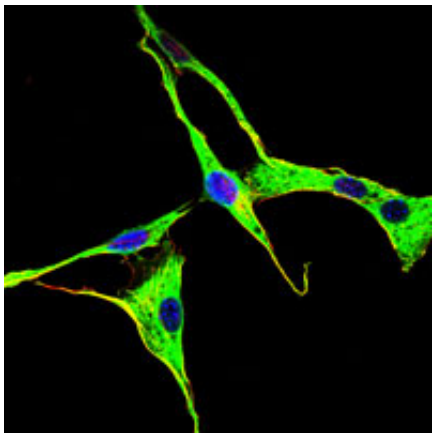

Figure 3: Immunofluorescence analysis of NIH/3T3 cells using GRK2 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

GRK2 Antibody - References

1. Mol Biol Cell. 2008 Jul;19(7):2973-83. 2. Biochemistry. 2009 May 26;48(20):4285-93.