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KD-Validated Anti-GRK2 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1966

Specification

KD-Validated Anti-GRK2 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	P25098
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 80 kDa ; Observed, 80 kDa KDa**
Gene Name	**GRK2**
Aliases	**GRK2; G Protein-Coupled Receptor Kinase 2; BARK1; ADRBK1; Beta-Adrenergic Receptor Kinase 1; EC 2.7.11.15; Beta-ARK-1; Adrenergic, Beta, Receptor Kinase 1; G-Protein Coupled Receptor Kinase; Adrenergic Beta Receptor Kinase 1; BETA-ARK1; EC 2.7.11; BARK**
Immunogen	**A synthesized peptide derived from human GRK2**

KD-Validated Anti-GRK2 Rabbit Monoclonal 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 {ECO:0000312|HGNC:HGNC:289}, GRK2 (HGNC:289), ADRBK1, BARK, BARK1

KD-Validated Anti-GRK2 Rabbit Monoclonal 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}

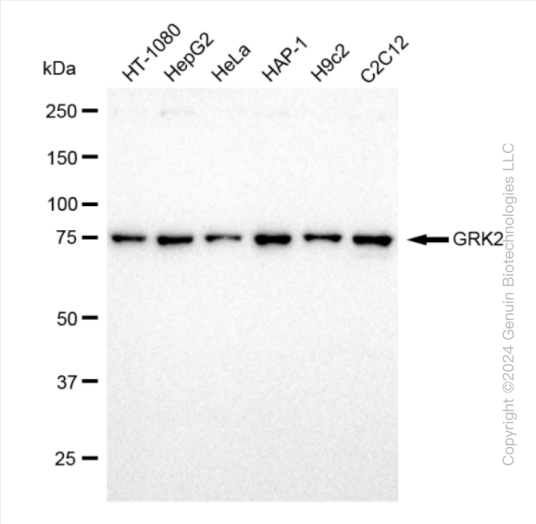
Tissue Location
Expressed in peripheral blood leukocytes.

KD-Validated Anti-GRK2 Rabbit Monoclonal 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

KD-Validated Anti-GRK2 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-GRK2 antibody (Cat#AGI1966). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-GRK2 antibody (Cat#AGI1966, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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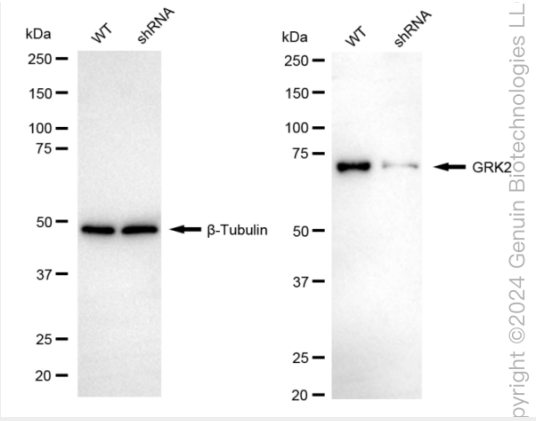
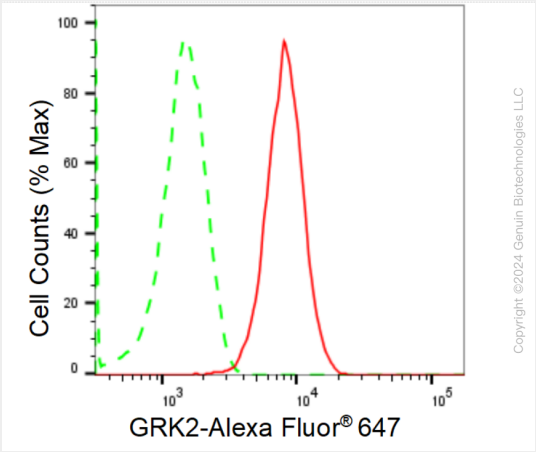
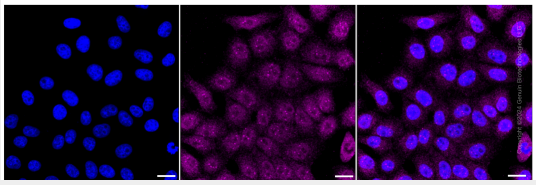


Western blotting analysis using anti-GRK2 antibody (Cat#AGI1966). GRK2 expression in wild-type (WT) and GRK2 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-GRK2 antibody (Cat#AGI1966, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of GRK2 expression in HepG2 cells using GRK2 antibody (Cat#AGI1966, 1:2,000). Green, isotype control; red, GRK2.



Immunocytochemical staining of HepG2 cells with GRK2 antibody (Cat#AGI1966, 1:1,000). Nuclei were stained blue with DAPI; GRK2 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.