

Product Name: KD-Validated GRK2 Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA00633**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 79.6kDa

Antigen Information

Gene Name	GRK2 GRK2; G Protein-Coupled Receptor Kinase 2; BARK1; ADRBK1; Beta-Adrenergic Receptor
Alternative Names	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
Gene ID	156.0
SwissProt ID	P25098
Immunogen	A synthesized peptide derived from human GRK2

Background

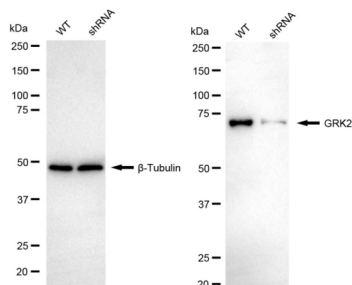
This gene encodes a member of the G protein-coupled receptor kinase family of proteins. The encoded protein phosphorylates the beta-adrenergic receptor as well as a wide range of other substrates including non-GPCR cell surface receptors, and

cytoskeletal, mitochondrial, and transcription factor proteins. Data from rodent models supports a role for this gene in embryonic development, heart function and metabolism. Elevated expression of this gene has been observed in human patients with heart failure and Alzheimer's disease. [provided by RefSeq, Sep 2017]

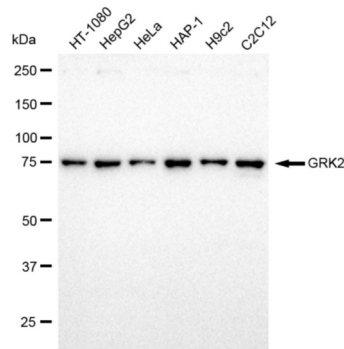
Research Area

Neuroscience, Signal Transduction

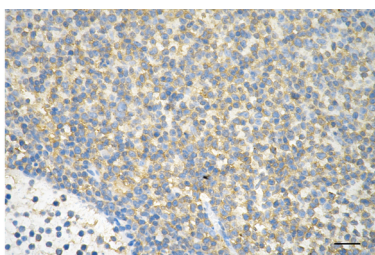
Image Data



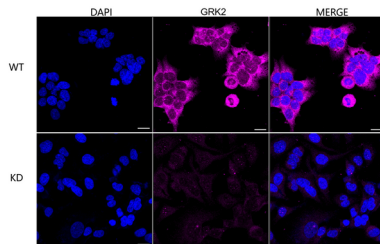
Western blotting analysis using GRK2 antibody (KVA00633). GRK2 expression in wild-type (WT) and GRK2 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with GRK2 antibody (KVA00633, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



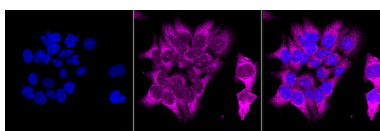
Western blotting analysis using GRK2 antibody (KVA00633). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with GRK2 antibody (KVA00633, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



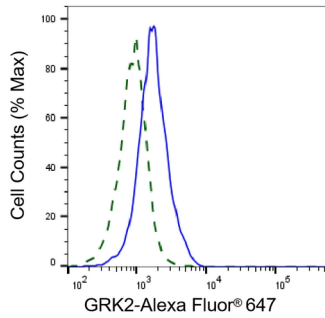
Immunohistochemistry was performed on paraffin-embedded human lymphoma using GRK2 antibody (KVA00633, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



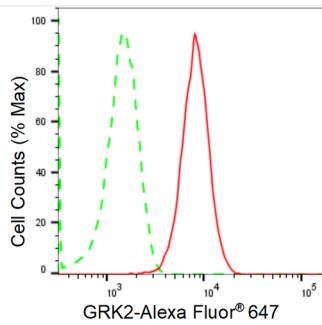
Immunocytochemical staining of HeLa cells using GRK2 antibody (KVA00633, 1:1,000). Top panel: wild-type (WT); Bottom panel: GRK2 shRNA knockdown (KD). Nuclei were stained blue with DAPI; GRK2 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.



Immunocytochemical staining of HepG2 cells with GRK2 antibody (KVA00633, 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.



Validation of GRK2 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with GRK2 antibody (KVA00633, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of GRK2 expression in HepG2 cells using GRK2 antibody (KVA00633, 1:2,000). Green, isotype control; red, GRK2.