

[KD Validated] Anti-GRK2 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

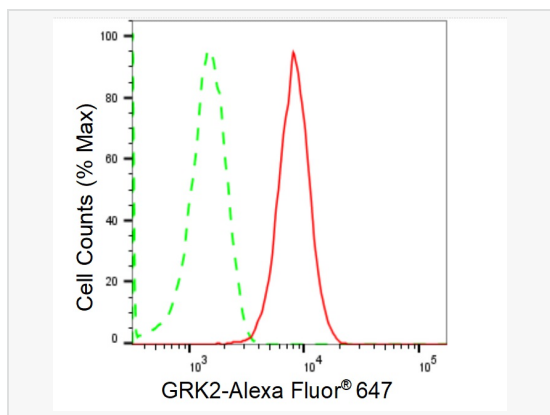
Catalog # R020706

Product Information

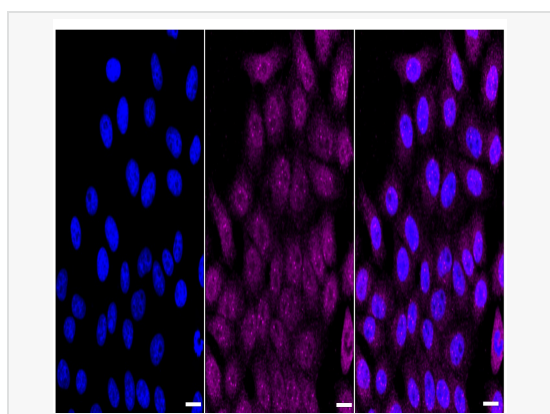
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|-------------|--|
| Application | WB, FC, IF (Cell)/ICC, IHC-P/IF (Tissue-P) |
| Reactivity | Human, Mouse, Rat |
| Dilution | WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000; IHC-P 1:100~1:200 |
| Host | Rabbit |
| Clonality | Monoclonal |
| Clone No. | 71G89N11 |
| Isotype | IgG |
| Label | Unconjugated |
| Immunogen | A synthesized peptide derived from human GRK2 |
| Format | Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3. |
| Storage | Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage. |
| Precautions | [KD Validated] Anti-GRK2 Rabbit mAb [71G89N11] is for research use only and not for use in diagnostic or therapeutic procedures. |

Protein Information

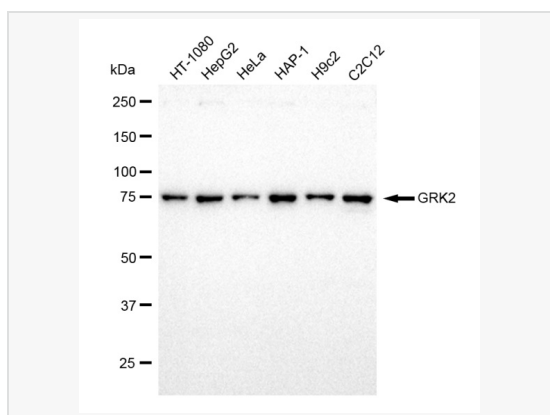
| | |
|-----------------|---|
| Synonyms | GRK2; G Protein-Coupled Receptor Kinase 2; BARK1; ADRBK1; Beta-Adrenergic Receptor Kinase 1; EC 2.7.11.15; Beta-ARK-1; Adrenergic, Beta, Receptor Kinase 1; G-Protein Coupled Receptor Kinase; Adrenergic Beta Receptor Kinase 1; BETA-ARK1; EC 2.7.11; BARK. |
| Calculated MW | Calculated MW: 80 kDa, Observed MW: 80 kDa |
| Uniprot ID | P25098 |
| Gene ID | 156 |
| 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] |
| Tissue Location | Expressed in peripheral blood leukocytes. |



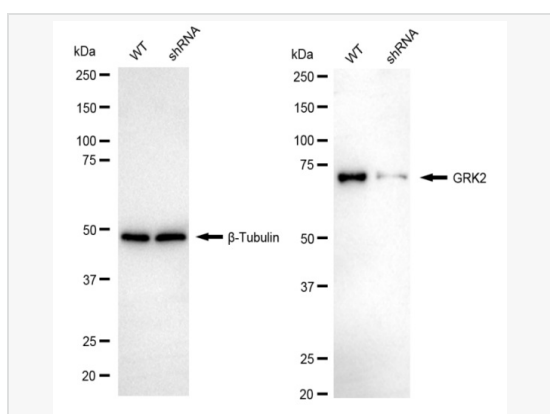
Flow cytometric analysis of GRK2 expression in HepG2 cells using GRK2 antibody (R020706, 1:2,000). Green, isotype control; red, GRK2.



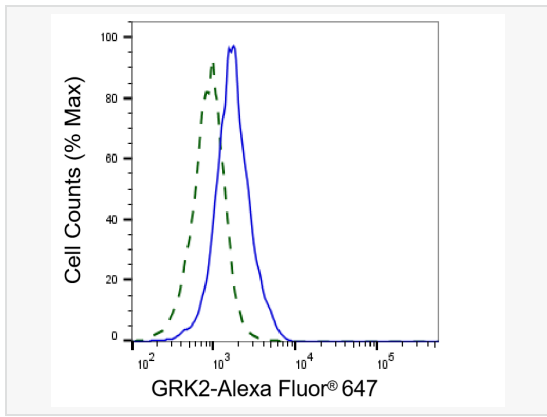
Immunocytochemical staining of HepG2 cells with GRK2 antibody (R020706, 1:1,000). Nuclei were stained blue with DAPI; GRK2 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



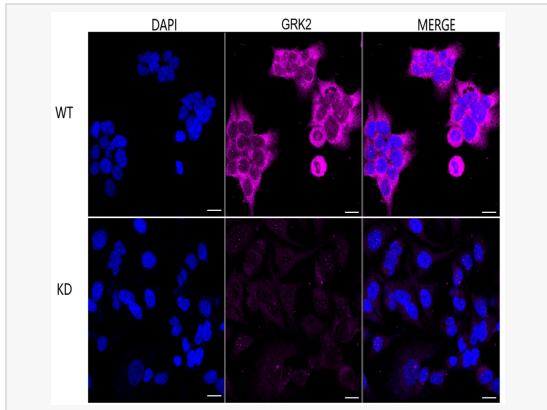
Western blotting analysis using GRK2 antibody (R020706). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with GRK2 antibody (R020706, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



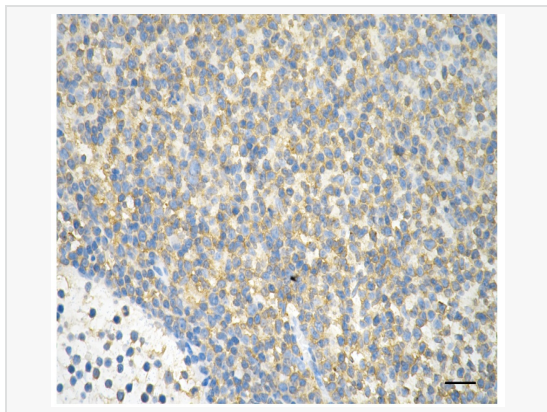
Western blotting analysis using GRK2 antibody (R020706). GRK2 expression in wild-type (WT) and GRK2 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with GRK2 antibody (R020706, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Validation of GRK2 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with GRK2 antibody (R020706, 1:2,000) and analyzed using BD flow cytometer.



Immunocytochemical staining of HeLa cells using GRK2 antibody (R020706, 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 μ m. Permeabilization: Triton.



Immunohistochemistry was performed on paraffin-embedded human lymphoma using GRK2 antibody (R020706, 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 \times objective). Scale bar: 25 μ m.