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Datasheet for 600-101-MH5

# GRK2 Antibody

## Overview

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| **Description:** | Anti-GRK2 (GOAT) Antibody - 600-101-MH5 |
| **Item No.:** | 600-101-MH5 |
| **Size:** | 100 µg |
| **Applications:** | IHC, WB |
| **Reactivity:** | Human, Mouse |
| **Host Species:** | Goat |

## Product Details

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| **Background:** | GRK2 (G Protein-Coupled Receptor Kinase 2) is a member of the G protein-coupled receptor kinase family of proteins. GRK2 Specifically phosphorylates the agonist-occupied form of the beta-adrenergic and as well as a wide range of other substrates including non-GPCR cell surface receptors, and cytoskeletal, mitochondrial, and transcription factor proteins. It is a key regulator of LPAR1 signaling. GRK2 competes with RALA for binding to LPAR1 thus affecting the signaling properties of the receptor. It desensitizes LPAR1 and LPAR2 in a phosphorylation-independent manner. And 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. 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. Anti-GRK2 Antibody is useful for researchers interested in Neuroscience, Cytokines & Growth Factors, and Stem Cell Research. |
| **Synonyms:** | Goat Anti-G Protein-Coupled Receptor Kinase 2 Antibody, Goat Anti-GRK2 Antibody, Beta-ARK-1, ADRBK1, BARK1, G-Protein Coupled Receptor Kinase 2, Adrenergic, Beta, Receptor Kinase 1, Adrenergic Beta Receptor Kinase 1, Beta-Adrenergic Receptor Kinase 1, EC 2.7.11.15, BETA-ARK1, BARK |
| **Host Species:** | Goat |
| **Clonality:** | Polyclonal |
| **Format:** | IgG |

## Target Details

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| **Gene Name:** | GRK2 |

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| **Reactivity:** | Human, Mouse |
| **Immunogen Type:** | Conjugated Peptide |
| **Immunogen:** | Anti-GRK2 antibody was prepared from whole goat serum produced by repeated immunizations with a synthetic peptide corresponding to a near C-terminal portion of human GRK2 conjugated to Keyhole Limpet Hemocyanin (KLH). |
| **Purity/Specificity:** | This affinity purified antibody is directed against human GRK2. This product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis of the sequence shows 100% reactivity to human, and 90% to rat, mouse, and golden hamster. |
| **Relevant Links:** | • UniProtKB - P25098<br>• NCBI - NP_001610.2<br>• GeneID - 156 |

## Application Details

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| **Tested Applications:** | IHC, WB |
| **Application Note:** | Anti-GRK2 Antibody has been tested in Western Blot and IHC. Expect a band at ~79.6kDa in western blot using appropriate lysates. Positive control used: Human high grade lymphoma tissue in Immunohistochemistry and THP-1 lysate in western blot. |
| **Assay Dilutions:** | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below. |
| **ELISA:** | 1:10,000-1:50,000 |
| **IF:** | 15 ug/ml |
| **IHC:** | 1:1000 |
| **WB:** | 1:1000 |

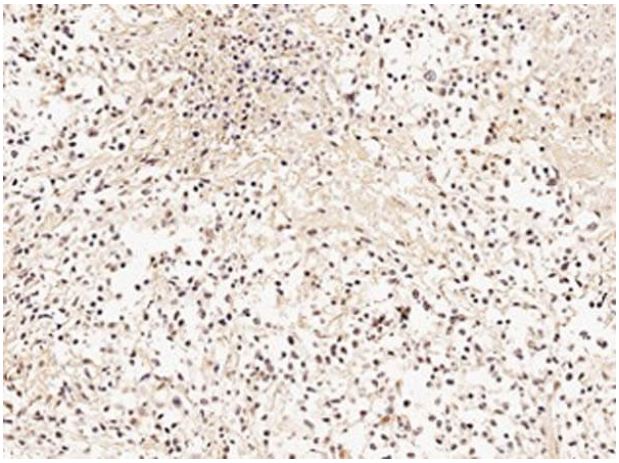
## Formulation

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| **Physical State:** | Liquid (sterile filtered) |
| **Concentration:** | 0.89 mg/ml by UV absorbance at 280 nm |
| **Buffer:** | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |
| **Preservative:** | 0.01% (w/v) Sodium Azide |
| **Stabilizer:** | None |

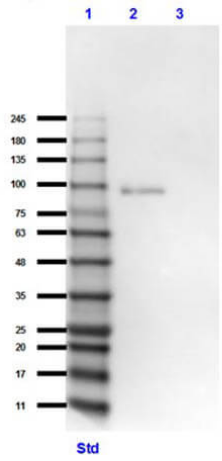
## Shipping & Handling

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| **Shipping Condition:** | Dry Ice |
| **Storage Condition:** | Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. |
| **Expiration:** | Expiration date is one (1) year from date of receipt. |

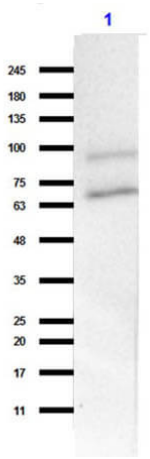
## Images



**Immunohistochemistry**
Immunohistochemistry of Goat Anti-GRK2 Antibody. Tissue: Human high grade Lymphoma tissue. Antigen Retrieval: Heat induced epitope retrieval (HIER). Primary Antibody: Anti-GRK2 at 1:1000. Secondary Antibody: Anti-Goat. Stain: hematoxylin. Magnification: 20X. Location: specific cytoplasmic staining and partially weak nuclear staining.




**Western Blot**
Western Blot of Goat Anti-GRK2 Antibody. Lane 1: Opal Prestained Molecular Weight (p/n MB-210-0500). Lane 2: HEK293T - GRK2 Overexpressing Lysate. Lane 3: HEK293T - empty vector lysate. Primary Antibody: Anti-GRK2 at 1:1000 overnight at 2-8°C. Secondary Antibody: Goat Anti-Donkey IgG HRP (p/n 605-703-125) at 1:40,000 for 1hr at RT. Block: 5% BLOTTO (p/n B501-0500). Observed: Overexpressed lysate ~80-100kDa.




**Western Blot**

Western Blot of Goat Anti-GRK2 Antibody. Lane 1: THP-1 lysate (p/n W09-001-GX1). Primary Antibody: Anti-GRK2 at 1:1000 overnight at 2-8°C. Secondary Antibody: Goat Anti-Donkey IgG HRP (p/n 605-703-125) at 1:40,000 for 1hr at RT. Block: 5% BLOTTO (p/n B501-0500). Observed: ~80-100 kDa.

## Disclaimer

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