

**Datasheet for 600-101-MH5S****GRK2 Antibody****Overview**

<b>Description:</b>	Anti-GRK2 (GOAT) Antibody - 600-101-MH5S
<b>Item No.:</b>	600-101-MH5S
<b>Size:</b>	25 µL
<b>Applications:</b>	IHC, WB
<b>Reactivity:</b>	H. sapiens (Human), Mus musculus (Mouse)
<b>Host Species:</b>	Goat

**Product Details**

**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**

**Gene Name:** GRK2

<b>Reactivity:</b>	H. sapiens (Human), Mus musculus (Mouse)
<b>Immunogen Type:</b>	Peptide
<b>Immunogen:</b>	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).
<b>Purity/Specificity:</b>	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.
<b>Relevant Links:</b>	<ul style="list-style-type: none"><li>• <a href="#">UniProtKB - P25098</a></li><li>• <a href="#">NCBI - NP_001610.2</a></li><li>• <a href="#">GeneID - 156</a></li></ul>

## Application Details

<b>Tested Applications:</b>	IHC, WB
<b>Application Note:</b>	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.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>ELISA:</b>	5 µg/ml
<b>IF:</b>	15 ug/ml
<b>IHC:</b>	1:1000
<b>WB:</b>	1:1000

## Formulation

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

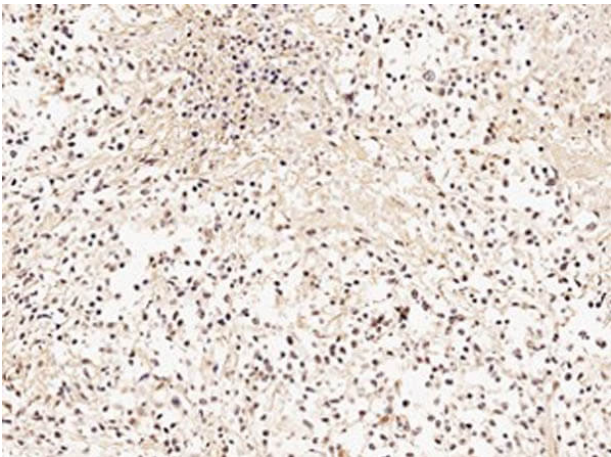
## Shipping & Handling

**Shipping Condition:** Dry Ice

**Storage Condition:** Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.

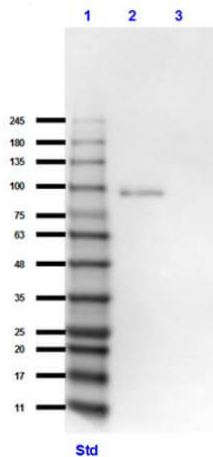
**Expiration:** Expiration date is one (1) year from date of receipt.

## Images



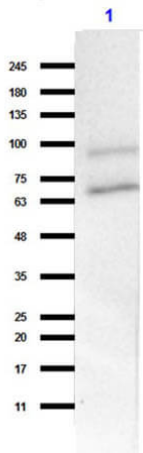
### Immunohistochemistry

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**

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.