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# Anti-GRK2 ADRBK1 Rabbit Monoclonal Antibody

Catalog # ABO13397

## Product Information

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| **Application** | WB, IHC |
| **Primary Accession** | P25098 |
| **Host** | Rabbit |
| **Isotype** | Rabbit IgG |
| **Reactivity** | Rat, Human, Mouse |
| **Clonality** | Monoclonal |
| **Format** | Liquid |
| **Description** | Anti-GRK2 ADRBK1 Rabbit Monoclonal Antibody . Tested in WB, IHC applications. This antibody reacts with Human, Mouse, Rat. |

## Additional Information

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| **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 |
| **Calculated MW** | 79574 |
| **Application Details** | WB 1:500-1:2000<br>IHC 1:50-1:200 |
| **Subcellular Localization** | Cytoplasm. Cell membrane. |
| **Tissue Specificity** | Expressed in peripheral blood leukocytes.. |
| **Source** | Eukaryota |
| **Contents** | Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA. |
| **Clone Names** | Clone: EGE-1 |
| **Immunogen** | A synthesized peptide derived from human GRK2 |
| **Purification** | Affinity-chromatography |
| **Storage** | Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles. |

## Protein Information

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| **Name** | GRK2 {ECO:0000303\|PubMed:40384633, ECO:0000312\|HGNC:HGNC:289} |

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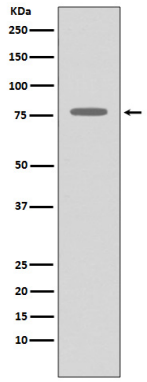
| **Function** | Specifically phosphorylates the activated forms of G protein- coupled receptors (PubMed:14976224, PubMed:16179383, PubMed:19306925, PubMed:19715378, PubMed:21799898, PubMed:23077507, PubMed:30284927, PubMed:33859231, PubMed:39138140, PubMed:40384633). Such receptor phosphorylation initiates beta-arrestin-mediated receptor internalization, and signaling events leading to their desensitization (PubMed:14976224, PubMed:16179383, PubMed:19306925, PubMed:19715378, PubMed:21799898, PubMed:23077507, PubMed:30284927, PubMed:33859231, PubMed:39138140, PubMed:40384633). Phosphorylates the agonist-occupied form of the beta-adrenergic and closely related receptors, probably inducing a desensitization of them (PubMed:19715378). Phosphorylates catecholamine-activated ADRB2 to regulate physiological cardiomyocyte contraction rate responses (By similarity). Also phosphorylates ligand- bound C3a and C5a anaphylatoxin receptors (C3AR1 and C5AR1, respectively), leading to receptor desensitization (PubMed:21799898, PubMed:23077507). Positively regulates ciliary smoothened (SMO) signaling pathway by mediating phosphorylation of SMO, facilitating SMO trafficking into the cilium and the stimulation of SMO activity (PubMed:39138140). Also positively regulates SMO signaling by mediating phosphorylation of GPR161, a key inhibitor SMO signaling, promoting ciliary export of GPR161 (PubMed:40384633). 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). Inhibits relaxation of airway smooth muscle in response to blue light (PubMed:30284927). Also able to mediate phosphorylation-independent desensitization of dopamine receptor DRD2 (By similarity). |
| **Cellular Location** | Cytoplasm {ECO:0000250\|UniProtKB:P26817}. Cell membrane {ECO:0000250\|UniProtKB:P21146}. Cell projection, cilium membrane. Postsynapse {ECO:0000250\|UniProtKB:P26817}. Presynapse {ECO:0000250\|UniProtKB:P26817} |
| **Tissue Location** | Expressed in peripheral blood leukocytes. |

## Images




Western blot analysis of GRK2 expression in THP-1 cell lysate.

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