

# GRK1 Recombinant Rabbit mAb

Catalog # AP99572

## Product Information

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| <b>Application</b>                      | WB, IHC-P, IHC-F, IF, E                                                                                                                                                                                                                                                                                                                                                     |
| <b>Primary Accession</b>                | <a href="#">Q15835</a>                                                                                                                                                                                                                                                                                                                                                      |
| <b>Other Accession</b>                  | <a href="#">Q15835</a>                                                                                                                                                                                                                                                                                                                                                      |
| <b>Host</b>                             | Rabbit                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Clonality</b>                        | Recombinant                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Calculated MW</b>                    | 63526                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Isotype</b>                          | IgG                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Purity</b>                           | affinity purified by Protein A                                                                                                                                                                                                                                                                                                                                              |
| <b>Buffer</b>                           | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.                                                                                                                                                                                                                                                                                                           |
| <b>SIMILARITY</b>                       | Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. GPRK subfamily. Contains 1 AGC-kinase C-terminal domain. Contains 1 protein kinase domain. Contains 1 RGS domain.                                                                                                                                                                             |
| <b>Post-translational modifications</b> | Autophosphorylated. Farnesylation is required for full activity.                                                                                                                                                                                                                                                                                                            |
| <b>DISEASE</b>                          | Defects in GRK1 are a cause of congenital stationary night blindness Oguchi type 2 (CSNBO2) [MIM:613411]. It is non-progressive retinal disorder characterized by impaired night vision, often associated with nystagmus and myopia. Congenital stationary night blindness Oguchi type is associated with fundus discoloration and abnormally slow dark adaptation.         |
| <b>Background Descriptions</b>          | This gene encodes a member of the guanine nucleotide-binding protein (G protein)-coupled receptor kinase subfamily of the Ser/Thr protein kinase family. The protein phosphorylates rhodopsin and initiates its deactivation. Defects in GRK1 are known to cause Oguchi disease 2 (also known as stationary night blindness Oguchi type-2). [provided by RefSeq, Jul 2008], |

## Additional Information

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| <b>Gene ID</b>     | 6011                                                                                                                                                                                            |
| <b>Other Names</b> | GPRK1; RHOK; RK; GRK1_HUMAN; GRK1; G protein-coupled receptor kinase 1; 2.7.11.14; GRK1_MOUSE; rhodopsin kinase                                                                                 |
| <b>Dilution</b>    | IHC-P=1:50-200,IHC-F=1:50-200,WB=1:500-2000,IF=1:50-200,ELISA=1:5000-10 000                                                                                                                     |
| <b>Storage</b>     | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Protein Information

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| <b>Name</b>              | GRK1 ( <a href="#">HGNC:10013</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Synonyms</b>          | RHOK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Function</b>          | Retina-specific kinase involved in the regulation of phototransduction, playing a key role in terminating the light- activated rhodopsin (RHO) signal in rod photoreceptors. Following light activation, it phosphorylates RHO, thereby promoting binding of S- arrestin (SAG) which then blocks transducin-mediated opsin signaling (PubMed: <a href="#">15946941</a> ). This rapid desensitization is essential for scotopic vision and permits rapid adaptation to changes in illumination (By similarity). May play a role in the maintenance of the outer nuclear layer in the retina (By similarity). |
| <b>Cellular Location</b> | Membrane {ECO:0000250 UniProtKB:P28327}; Lipid- anchor {ECO:0000250 UniProtKB:P28327}. Cell projection, cilium, photoreceptor outer segment {ECO:0000250 UniProtKB:Q9WVL4} Note=Subcellular location is not affected by light or dark conditions {ECO:0000250 UniProtKB:Q9WVL4}                                                                                                                                                                                                                                                                                                                             |
| <b>Tissue Location</b>   | Retinal-specific. Expressed in rods and cones cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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