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GRK1 Recombinant Rabbit mAb

Catalog # AP99572

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q15835
Other Accession	Q15835
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Recombinant
Calculated MW	63526
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	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.
Post-translational modifications	Autophosphorylated. Farnesylation is required for full activity.
DISEASE	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.
Background Descriptions	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

Gene ID	6011
Other Names	GPRK1; RHOK; RK; GRK1_HUMAN; GRK1; G protein-coupled receptor kinase 1; 2.7.11.14; GRK1_MOUSE; rhodopsin kinase
Dilution	IHC-P=1:50-200,IHC-F=1:50-200,WB=1:500-2000,IF=1:50-200,ELISA=1:5000-10000
Storage	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

Name	GRK1 (HGNC:10013)
Synonyms	RHOK
Function	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:15946941). 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).
Cellular Location	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}
Tissue Location	Retinal-specific. Expressed in rods and cones cells.

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