Product Name: Rhodopsin Rabbit Polyclonal Antibody
Catalog #: APRab17129

Summary

Production Name	Rhodopsin Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IHC,WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	RHO
Alternative Names	RHO; OPN2; Rhodopsin; Opsin-2
Gene ID	6010.0
SwissProt ID	P08100.The antiserum was produced against synthesized peptide derived from human Rhodopsin. AA range:299-348

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:5000..
Molecular Weight	42kD

Background

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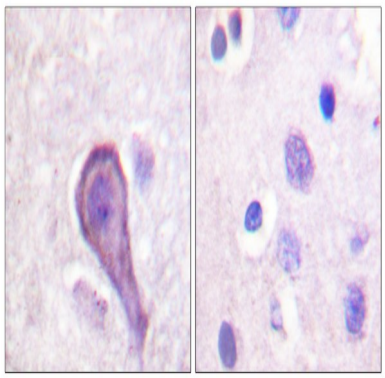
Retinitis pigmentosa is an inherited progressive disease which is a major cause of blindness in western communities. It can be inherited as an autosomal dominant, autosomal recessive, or X-linked recessive disorder. In the autosomal dominant form,which comprises about 25% of total cases, approximately 30% of families have mutations in the gene encoding the rod photoreceptor-specific protein rhodopsin. This is the transmembrane protein which, when photoexcited, initiates the visual transduction cascade. Defects in this gene are also one of the causes of congenital stationary night blindness. [provided by RefSeq, Jul 2008],disease:Defects in RHO are a cause of retinitis pigmentosa autosomal recessive (ARRP) [MIM:268000].,disease:Defects in RHO are the cause of congenital stationary night blindness autosomal dominant type 1 (CSNBAD1) [MIM:610445]; also known as rhodopsin-related congenital stationary night blindness. Congenital stationary night blindness is a non-progressive retinal disorder characterized by impaired night vision.,disease:Defects in RHO are the cause of retinitis pigmentosa type 4 (RP4) [MIM:180380]. RP leads to degeneration of retinal photoreceptor cells. Patients typically have night vision blindness and loss of midperipheral visual field. As their condition progresses, they lose their far peripheral visual field and eventually central vision as well. RP4 inheritance is autosomal dominant.,function:Photoreceptor required for image-forming vision at low light intensity. Required for photoreceptor cell viability after birth. Light-induced isomerization of 11-cis to all-trans retinal triggers a conformational change leading to G-protein activation and release of all-trans retinal.,online information:Retina International's Scientific Newsletter,online information:Rhodopsin entry,online information:Rhodopsin mutations page,PTM:Phosphorylated on some or all of the serine and threonine residues present in the C-terminal region.,similarity:Belongs to the G-protein coupled receptor 1 family. Opsin subfamily.,tissue specificity:Rod shaped photoreceptor cells which mediates vision in dim light.,

Research Area

Regulation of Microtubule Dynamics; Regulation of Actin Dynamics; SAPK_JNK; B_Cell_Antigen

Image Data



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using Rhodopsin Antibody. The picture on the right is blocked with the synthesized peptide.

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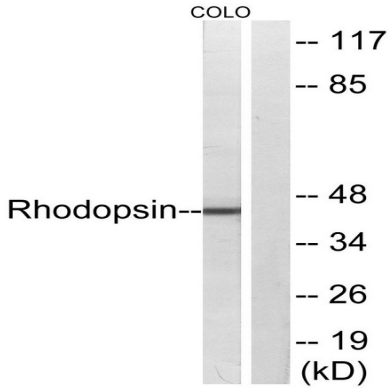
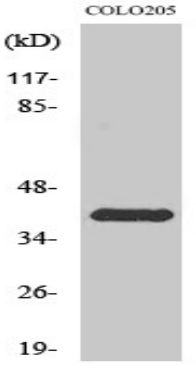


Western blot analysis of lysates from COLO cells, using Rhodopsin Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using Rhodopsin Polyclonal Antibody

Note

For research use only.