



Retinal S antigen Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54701

Specification

Retinal S antigen Polyclonal Antibody - Product Information

Application
Primary Accession
Reactivity
Host
Clonality
Calculated MW
Physical State
Immunogen

Epitope Specificity Isotype **Purity** affinity purified by Protein A

Buffer

SUBCELLULAR LOCATION SIMILARITY DISEASE

Important Note

Background Descriptions

WB, IHC-P, IHC-F, IF, ICC, E
P10523
Rat, Dog, Bovine
Rabbit
Polyclonal
45 KDa
Liquid
KLH conjugated synthetic peptide derived
from human Retinal S antigen
285-330/405

0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Cytoplasmic and Plasma membrane Belongs to the arrestin family. **Defects in SAG are the cause of congenital** stationary night blindness Oguchi type 1 (CSNBO1) [MIM:258100]; also known as Oguchi disease. Congenital stationary night blindness is a non-progressive retinal disorder characterized by impaired night vision. CSNBO is an autosomal recessive form associated with fundus discoloration and abnormally slow dark adaptation. Defects in SAG are the cause of retinitis pigmentosa type 47 (RP47) [MIM:613758]. RP47 is a retinal dystrophy belonging to the group of pigmentary retinopathies. Retinitis pigmentosa is characterized by retinal pigment deposits visible on fundus examination and primary loss of rod photoreceptor cells followed by secondary loss of cone photoreceptors. 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.

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



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Members of the Arrestin/beta-Arrestin protein family are thought to participate in agonist-mediated desensitization of G protein-coupled receptors, and cause specific dampening of cellular responses to stimuli such as hormones, neurotransmitters or sensory signals. Visual Arrestin, also known as Arrestin, retinal S-antigen or S-Arrestin, is a major soluble photoreceptor protein that regulates light-dependent signal transduction through G protein-coupled receptor (rhodopsin) activation. Visual Arrestin is expressed in retinal photoreceptor cells and the pineal gland. Visual Arrestin is the major pathogenic autoantigen in inflammatory eye disease, such as uveoretinitis and Oguchi disease, a rare autosomal recessive form of night blindness.

Retinal S antigen Polyclonal Antibody - Additional Information

Gene ID 6295

Other Names

S-arrestin, 48 kDa protein, Retinal S-antigen, S-AG, Rod photoreceptor arrestin, SAG

Target/Specificity

Retina and pineal gland.

Dilution

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<span class ="dilution WB">WB~~1:1000</span><br \><span class</pre>
="dilution IHC-P">IHC-P~~N/A</span><br \><span class
="dilution IHC-F">IHC-F~~N/A</span><br \><span class
="dilution IF">IF~~1:50~200</span><br/>or \><span class ="dilution ICC">ICC~~N/A</span><br/>or \>
\><span class ="dilution E">E~~N/A</span>
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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.

Retinal S antigen Polyclonal Antibody - Protein Information

Name SAG

Function

Binds to photoactivated, phosphorylated RHO and terminates RHO signaling via G-proteins by competing with G-proteins for the same binding site on RHO (By similarity). May play a role in preventing light-dependent degeneration of retinal photoreceptor cells (PubMed:9565049).

Cellular Location

Cell projection, cilium, photoreceptor outer segment. Membrane {ECO:0000250|UniProtKB:P20443}; Peripheral membrane protein {ECO:0000250|UniProtKB:P20443}. Note=Highly expressed in photoreceptor outer segments in light-exposed retina. Evenly distributed throughout rod photoreceptor cells in dark-adapted retina (By similarity) Predominantly dectected at the proximal region of photoreceptor outer segments, near disk membranes (PubMed:3720866) {ECO:0000250|UniProtKB:P08168, ECO:0000269|PubMed:3720866}

Tissue Location

Detected in retina, in the proximal portion of the outer segment of rod photoreceptor cells (at protein level)



Retinal S antigen Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Retinal S antigen Polyclonal Antibody - Images