

# Retinal S antigen Rabbit pAb

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Catalog # AP54701

## Product Information

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<b>Application</b>	WB, IHC-P, IHC-F, IF, E
<b>Primary Accession</b>	<a href="#">P10523</a>
<b>Predicted</b>	Human, Mouse, Rat, Dog, Rabbit, Sheep
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	45120
<b>Physical State</b>	Liquid
<b>Immunogen</b>	KLH conjugated synthetic peptide derived from human Retinal S antigen
<b>Epitope Specificity</b>	285-330/405
<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>SUBCELLULAR LOCATION</b>	Cytoplasmic and Plasma membrane
<b>SIMILARITY</b>	Belongs to the arrestin family.
<b>DISEASE</b>	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.
<b>Important Note</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
<b>Background Descriptions</b>	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.

## Additional Information

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<b>Gene ID</b>	6295
<b>Other Names</b>	S-arrestin, 48 kDa protein, Retinal S-antigen, S-AG, Rod photoreceptor arrestin, SAG
<b>Target/Specificity</b>	Retina and pineal gland.
<b>Dilution</b>	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,ELISA=1:5000-10000
<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>	SAG
<b>Function</b>	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: <a href="#">9565049</a> ).
<b>Cellular Location</b>	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 detected at the proximal region of photoreceptor outer segments, near disk membranes (PubMed:3720866) {ECO:0000250 UniProtKB:P08168, ECO:0000269 PubMed:3720866}
<b>Tissue Location</b>	Detected in retina, in the proximal portion of the outer segment of rod photoreceptor cells (at protein level)

## Background

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.