10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Retinal S antigen Rabbit pAb

Retinal S antigen Rabbit pAb
Catalog # AP54701

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P10523
Predicted	Rat, Dog, Human, Mouse, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	45120
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Retinal S antigen
Epitope Specificity	285-330/405
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasmic and Plasma membrane
DISEASE	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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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

Gene ID	6295
Other Names	S-arrestin, 48 kDa protein, Retinal S-antigen, S-AG, Rod photoreceptor arrestin, SAG
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,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	SAG
Function	Involved in the regulation of phototransduction, playing a key role in signal termination after rhodopsin (RHO) has been activated by light in rod photoreceptors. Binds to photoactivated and phosphorylated RHO, preventing its interaction with transducin (GNAT1) and terminating transducin-mediated opsin signaling (By similarity). May play a role in preventing light-dependent degeneration of retinal photoreceptor cells (PubMed:9565049).
Cellular Location	Photoreceptor inner segment {ECO:0000250|UniProtKB:P20443}. Cell projection, cilium, photoreceptor outer segment. Membrane {ECO:0000250|UniProtKB:P20443}; Peripheral membrane protein {ECO:0000250|UniProtKB:P20443}. Note=In dark-adapted retina, it is predominatly localized to the outer nuclear layer and photoreceptor inner segments (By similarity). Localized to photoreceptor outer segments in light-exposed retina. During light exposure it first accumulates in the proximal region of photoreceptor outer segments, and moves toward the distal tip of the outer segment as light exposure is prolonged (By similarity). {ECO:0000250|UniProtKB:P20443}
Tissue Location	Detected in retina, in the proximal portion of the outer segment of rod photoreceptor cells (at protein level)

Background

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

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