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Product datasheet

Anti-Retinal S antigen antibody ab3435

1 References

Overview

Product name	Anti-Retinal S antigen antibody
Description	Rabbit polyclonal to Retinal S antigen
Host species	Rabbit
Specificity	Detects recombinant bovine visual Arrestin.
Immunogen	Synthetic peptide corresponding to Rat Retinal S antigen aa 347-363. Sequence: EVATEVPFRLMHPQPED Database link: **P15887** (Peptide available as **ab4974**) Run BLAST with Run BLAST with
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 99% PBS
Purity	Immunogen affinity purified
Primary antibody notes	Vision involves the conversion of light into electrochemical signals that are processed by the retina and subsequently sent to, and interpreted by, the brain. The process of converting light to an electrochemical signal begins when the membrane-bound protein, rhodopsin, absorbs light within the retina. Photoexcitation of rhodopsin causes the cytoplasmic surface of the protein to become catalytically active. In the active state, rhodopsin activates transducin, a GTP binding protein.

	Once activated, transducin promotes the hydrolysis of cGMP by phosphodiesterase (PDE). The decrease of intracellular cGMP concentrations causes the ion channels within the outer segment of the rod or cone to close, thus causing membrane hyperpolarization and, eventually, signal transmission. Rhodopsin's activity is believed to be shut off by its phosphorylation followed by binding of the soluble protein arrestin. Arrestins are cytosolic proteins that are involved in G protein-coupled receptor (GPCR) desensitization. Arrestin binding to activated GPCRs is phosphorylation dependent and, once bound, uncouple the GPCR from the associated heterotrimeric G proteins. There are currently 4 known mammalian isoforms, beta-Arrestin 1 (Arrestin 2), beta-Arrestin 2 (Arrestin 3), visual Arrestin (Arrestin 1), and cone arrestin. The beta-isoforms are ubiquitously expressed and are known to interact with acetylcholine and adrenergic receptors. Visual and cone Arrestins are found to interact directly with transducin.
Clonality	Polyclonal
Isotype	IgG

Target

Function	Arrestin is one of the major proteins of the ros (retinal rod outer segments); it binds to photoactivated-phosphorylated rhodopsin, thereby apparently preventing the transducin-mediated activation of phosphodiesterase.
Tissue specificity	Retina and pineal gland.
Involvement in disease	Defects in SAG are a 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.
Sequence similarities	Belongs to the arrestin family.