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Anti-RGR Antibody (Cytoplasmic Domain)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS17533

Product Information

Application	IHC-P
Primary Accession	P47804
Predicted	Human, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31874
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	5995
Alias Symbol	RGR
Other Names	RGR, RGR-opsin, RP44
Target/Specificity	Human RGR. BLAST analysis of the peptide immunogen showed no homology with other human proteins.
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-RGR Antibody (Cytoplasmic Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RGR (HGNC:9990)
Function	Non-visual opsin that functions as a light-dependent facilitator of retinoid isomerization and trafficking in retinal pigment epithelium (RPE) and Mueller glia (PubMed:18474598). Participates in a photic visual cycle by complementing the classical enzymatic RPE65/RDH pathway for chromophore regeneration (By similarity). Binds all-trans-retinal via a conserved Schiff-base lysine and, upon illumination, promotes photoisomerization of all-trans-retinal to 11-cis-retinal required for regeneration of visual pigments (By similarity). Also mediates light-dependent mobilization of stored all-trans-retinyl esters from lipid droplets to endoplasmic reticulum membranes, facilitating their processing into 11-cis-retinoids (PubMed:18474598). May also modulate isomerohydrolase activity independent of light (By similarity). Although RGR is structurally a GPCR-family opsin, there is no consistent evidence that RGR activates G proteins or initiates a canonical second-messenger signaling cascade

	(Probable).
Cellular Location	Membrane {ECO:0000250|UniProtKB:Q9Z2B3}; Multi- pass membrane protein
Tissue Location	Preferentially expressed at high levels in the retinal pigment epithelium (RPE) and Mueller cells of the neural retina.

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