

Rabbit RPE65 Polyclonal Antibody | anti-RPE65 antibody

RPE65 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA328896	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig(100%), Bovine(100%), Horse(100%), Sheep(100%), Rabbit(100%), Dog(100%), Chicken(88%), Xenopus(88%)	ELISA, Immunocytochemistry, Immunofluorescence

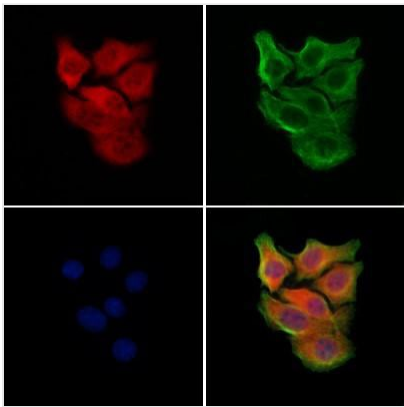
PRODUCT SYNONYMS

RPE65; Polyclonal Antibody; RPE65 Antibody; All-trans-retinyl-palmitate hydrolase; LCA 2; LCA2; Leber congenital amaurosis; mRPE 65; mRPE65; p63; rd 12; rd12; Retinal pigment epithelium specific 61 kDa protein; Retinal pigment epithelium specific 65 kDa protein; Retinal pigment epithelium specific protein; Retinal pigment epithelium specific protein 65kDa; Retinal pigment epithelium-specific 65 kDa protein; Retinitis pigmentosa 20; Retinoid isomerohydrolase; Retinol isomerase; RP 20; RP20; RPE 65; RPE65_HUMAN; sRPE 65; sRPE65; anti-RPE65 antibody

PRODUCT SPECIFICATIONS

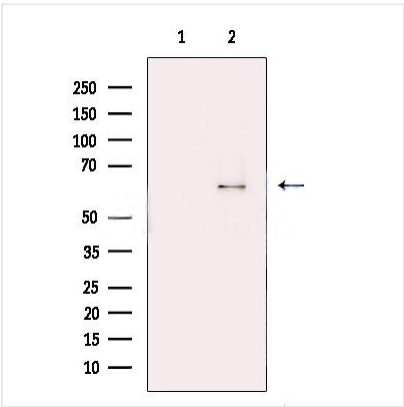
Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig(100%), Bovine(100%), Horse(100%), Sheep(100%), Rabbit(100%), Dog(100%), Chicken(88%), Xenopus(88%)
Clonality	Polyclonal
Isotype	IgG
Specificity	RPE65 Antibody detects endogenous levels of total RPE65.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin (Thermo Fisher Scientific).
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol
Concentration	1mg/ml (varies by lot)
Sequence Length	533
Applicable Applications for anti-RPE65 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence)
Immunogen	A synthesized peptide derived from human RPE65, corresponding to a region within N-terminal amino acids.
Fragment	Fab fragment
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

AAA328896 staining HeLa cells by IF/ICC. The samples were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25°C. Samples were then incubated with primary Ab(AAA328896 1:200) and mouse anti-beta tubulin Ab(T0023 1:200) for 1 hour at 37°C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody. The nuclear counter stain is DAPI(blue).



WB (Western Blot)

Western blot analysis of extracts from Rat brain, using RPE65 Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-RPE65 antibody

Function: Critical isomerohydrolase in the retinoid cycle involved in regeneration of 11-cis-retinal, the chromophore of rod and cone opsins. Catalyzes the cleavage and isomerization of all-trans-retinyl fatty acid esters to 11-cis-retinol which is further oxidized by 11-cis retinol dehydrogenase to 11-cis-retinal for use as visual chromophore (PubMed:16116091). Essential for the production of 11-cis retinal for both rod and cone photoreceptors (PubMed:17848510). Also capable of catalyzing the isomerization of lutein to meso-zeaxanthin an eye-specific carotenoid (PubMed:28874556). The soluble form binds vitamin A (all-trans-retinol), making it available for LRAT processing to all-trans-retinyl ester. The membrane form, palmitoylated by LRAT, binds all-trans-retinyl esters, making them available for IMH (isomerohydrolase) processing to all-cis-retinol. The soluble form is regenerated by transferring its palmitoyl groups onto 11-cis-retinol, a reaction catalyzed by LRAT (By similarity).

Post Translational Modifications: Palmitoylation by LRAT regulates ligand binding specificity; the palmitoylated form (membrane form) specifically binds all-trans-retinyl-palmitate, while the soluble unpalmitoylated form binds all-trans-retinol (vitamin A) (By similarity).

Subcellular Location: Cytoplasm. Cell membrane>Lipid-anchor. Microsome membrane. Note: Attached to the membrane by a lipid anchor when palmitoylated (membrane form), soluble when unpalmitoylated. Undergoes light-dependent intracellular transport to become more concentrated in the central region of the retina pigment epithelium cells.

Tissue Specificity: Retina (at protein level). Retinal pigment epithelium specific.

Subunit Structure: Interacts with MYO7A; this mediates light-dependent intracellular transport of RPE65.

Similarity: Belongs to the carotenoid oxygenase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4506591
NCBI GeneID	6121
NCBI Accession #	NP_000320.1
NCBI GenBank Nucleotide #	NP_000320.1
UniProt Accession #	Q16518

Molecular Weight	Observed Molecular Weight: (Observed)60kD. Predicted Molecular Weight: (Calculated)61kDa.
NCBI Official Full Name	retinoid isomerohydrolase
NCBI Official Synonym Full Names	retinoid isomerohydrolase RPE65
NCBI Official Symbol	RPE65
NCBI Official Synonym Symbols	p63; BCO3; LCA2; RP20; rd12; mRPE65; sRPE65
NCBI Protein Information	retinoid isomerohydrolase
UniProt Protein Name	Retinoid isomerohydrolase
UniProt Gene Name	RPE65

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/rpe65-antibody-immunocytochemistry-immunofluorescence-elisa/328896>