

ARG41875 anti-RPE65 antibody

Package: 100 µl
Store at: -20°C

Summary

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|---------------------|--|
| Product Description | Rabbit Polyclonal antibody recognizes RPE65 |
| Tested Reactivity | Hu, Ms, Rat |
| Tested Application | ICC/IF, WB |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | IgG |
| Target Name | RPE65 |
| Species | Human |
| Immunogen | Recombinant fusion protein corresponding to aa. 274-533 of Human RPE65. (NP_000320.1) |
| Conjugation | Un-conjugated |
| Alternate Names | Retinal pigment epithelium-specific 65 kDa protein; rd12; EC 3.1.1.64; LCA2; Retinol isomerase; sRPE65; RP20; BCO3; All-trans-retinyl-palmitate hydrolase; mRPE65; Retinoid isomerohydrolase |

Application Instructions

| Application table | Application | Dilution |
|-------------------|--|----------------|
| | ICC/IF | 1:50 - 1:200 |
| | WB | 1:500 - 1:2000 |
| Application Note | * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. | |
| Positive Control | NCI-H460 | |
| Observed Size | ~ 63 kDa | |

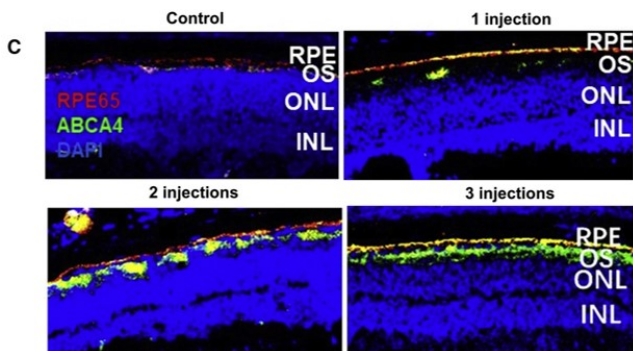
Properties

| | |
|---------------------|---|
| Form | Liquid |
| Purification | Affinity purified. |
| Buffer | PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol. |
| Preservative | 0.02% Sodium azide |
| Stabilizer | 50% Glycerol |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |
| Note | For laboratory research only, not for drug, diagnostic or other use. |

Bioinformation

| | |
|-----------------------|---|
| Gene Symbol | RPE65 |
| Gene Full Name | retinal pigment epithelium-specific protein 65kDa |
| Background | This gene encodes a protein which is located in the retinal pigment epithelium and is involved in the production of 11-cis retinal and in visual pigment regeneration. There are two forms of this protein, a soluble form called sRPE65, and a palmitoylated, membrane-bound form known as mRPE65. mRPE65 serves as the palmitoyl donor for lecithin retinol acyl transferase (LRAT), the enzyme that catalyzes the vitamin A to all trans retinol step of the chromophore regeneration process. Both mRPE65 and sRPE65 also serve as regulatory proteins, with the ratio and concentrations of these molecules playing a role in the inhibition of 11-cis retinal synthesis. Mutations in this gene have been associated with Leber congenital amaurosis type 2 (LCA2) and retinitis pigmentosa. [provided by RefSeq, Jul 2008] |
| Function | Plays important roles in the production of 11-cis retinal and in visual pigment regeneration. 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. The enzymatic activity is linearly dependent of the expression levels and membrane association. [UniProt] |
| Calculated Mw | 61 kDa |
| PTM | 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). [UniProt] |
| Cellular Localization | 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. [UniProt] |

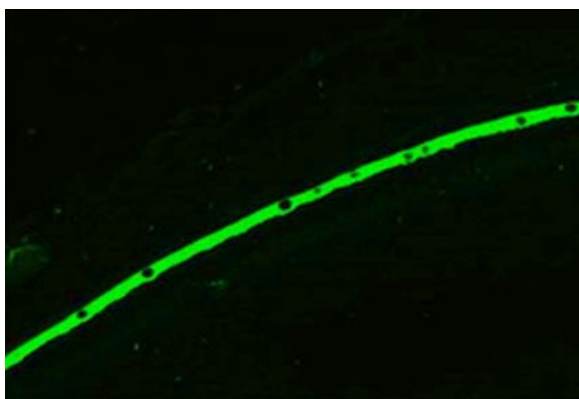
Images



ARG41875 anti-RPE65 antibody IHC-Fr image

Immunohistochemistry: Mouse retina stained with ARG41875 anti-RPE65 antibody at dilution.

From Da Sun et al. Mol Ther Nucleic Acids. (2022), [doi: 10.1016/j.omtn.2022.08.026](https://doi.org/10.1016/j.omtn.2022.08.026), Fig. 3C.

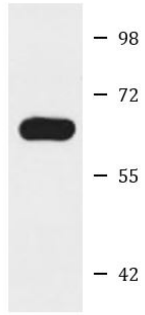


ARG41875 anti-RPE65 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Mouse eye tissue stained with ARG41875 anti-RPE65 antibody at 1:100 dilution.

ARG41875 anti-RPE65 antibody WB image

Western blot: 25 µg of NCI-H460 cell lysate stained with ARG41875 anti-RPE65 antibody at 1:1000 dilution.



NCI-H460
