

PRODUCT INFORMATION

RGR Target

RGR-opsin; RP44; Retinal G protein-coupled **Synonyms**

receptor

Recombinant human RGR Protein with C-terminal **Description**

human Fc tag

Delivery In Stock P47804 **Uniprot ID Expression Host HEK293**

Tag C-Human Fc tag

Molecular

Storage & Shipping

Background

Purity

RGR(Met1-Glu15) hFc(Glu99-Ala330) Characterization

The protein has a predicted molecular mass of **Molecular Weight** 27.7 kDa after removal of the signal peptide.

The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue

staining.

Lyophilized from sterile PBS, pH 7.4. Normally 5 % Formulation & - 8% trehalose is added as protectants before Reconstitution lyophilization. Please see Certificate of Analysis

for specific instructions of reconstitution. Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store

at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient

temperature.

RGR encodes the retinal G protein-coupled receptor, a non-visual opsin belonging to the GPCR (G-protein coupled receptor) family. It is primarily expressed in the retinal pigment epithelium (RPE) and Müller glial cells. Unlike classical visual opsins, RGR binds all-trans-retinal instead of 11-cis-retinal and can photoisomerize it back to 11-cis-retinal upon light exposure,

suggesting a role in the visual cycle regeneration

of chromophore. RGR may function as a photoisomerase or light sensor, contributing to retinal pigment metabolism and photoreceptor maintenance. Mutations in RGR have been associated with retinitis pigmentosa and retinal degenerative disorders, highlighting its

importance in retinal homeostasis and visual

physiology.

Usage Research use only Conjugate Unconjugated

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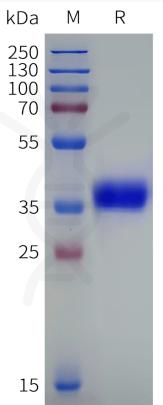


Figure 1. Human RGR Protein, hFc Tag on SDS-PAGE under reducing condition.



