**BACKGROUND**

The retinal pigment epithelium (RPE) is a monolayer simple epithelium in proximity to the outer surface of the retinal photoreceptor cells. Retinal pigment epithelial-specific protein (RPE65) is a 65 kDa protein belonging to the \(\beta\)-carotene dioxygenase family. It is important in 11-cis retinal production as well as in visual pigment regeneration. RPE65 is attached to the membrane by a lipid anchor when palmitoylated (membrane form) and is soluble when unpalmitoylated. The soluble form of the protein binds vitamin A. Defects in RPE65 cause autosomal dominant retinitis pigmentosa and/or Leber congenital amaurosis type 2.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: RPE65 (human) mapping to 1p31.3; Rpe65 (mouse) mapping to 3 H4.

**SOURCE**

RPE65 (8B11) is a mouse monoclonal antibody raised against RPE microsomal membranes of bovine origin.

**PRODUCT**

Each vial contains 200 µg IgG kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

RPE65 (8B11) is recommended for detection of RPE65 of mouse, rat, human and Xenopus laevis origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RPE65 (8B11) is also recommended for detection of RPE65 in additional species, including bovine.

Suitable for use as control antibody for RPE65 siRNA (h): sc-44898, RPE65 siRNA (m): sc-44899, RPE65 shRNA Plasmid (h): sc-44898-SH, RPE65 shRNA Plasmid (m): sc-44899-SH, RPE65 shRNA (h) Lentiviral Particles: sc-44898-V and RPE65 shRNA (m) Lentiviral Particles: sc-44899-V.

Molecular Weight of RPE65: 65 kDa.

Positive Controls: mouse eye extract: sc-364241 or human eye extract: sc-364223.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG B P-HRP: sc-516102 or m-IgG B P-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

3) Immunofluorescence: use m-IgGx BP-FITC: sc-516140 or m-IgGx BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our website at www.scbt.com for detailed protocols and support products.