



# retinitis pigmentosa 1 (Q-14): sc-87405

## BACKGROUND

Retinitis pigmentosa 1, also known as Oxygen-regulated protein 1, Retinitis pigmentosa RP1 protein, RP1, ORP1, DCDC4A, FLJ50293, FLJ55454 or FLJ79410, is a novel 2,156 amino acid oxygen-regulated photoreceptor specific to retina. Originally named ORP1 (for 'oxygen-regulated protein-1'), the expression of retinitis pigmentosa 1 has been found to be regulated by oxygen levels in the retina. Mutation of the retinitis pigmentosa 1 gene causes dominant retinitis pigmentosa which leads to degeneration of retinal photoreceptor cells and symptoms such as night vision blindness and deficits in the midperipheral visual field. Retinitis pigmentosa 1 may assist in differentiation of photoreceptor cells and has been identified in the cilia of photoreceptors, possibly aiding in both ciliary structure and protein transport between inner and outer segments of photoreceptors. Retinitis pigmentosa 1 contains two doublecortin domains and is encoded by a gene which maps to human chromosome 8q12.1.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: RP1 (human) mapping to 8q12.1.

## SOURCE

retinitis pigmentosa 1 (Q-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of retinitis pigmentosa 1 of human origin.

## RESEARCH USE

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

## PRODUCT

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

Blocking peptide available for competition studies, sc-87405 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

retinitis pigmentosa 1 (Q-14) is recommended for detection of retinitis pigmentosa 1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for retinitis pigmentosa 1 siRNA (h): sc-77767, retinitis pigmentosa 1 shRNA Plasmid (h): sc-77767-SH and retinitis pigmentosa 1 shRNA (h) Lentiviral Particles: sc-77767-V.

Molecular Weight of retinitis pigmentosa 1: 240 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.