

# Recoverin (H-100): sc-28849

## BACKGROUND

Light triggers the phototransduction cascade by activating the visual pigment rhodopsin. Phosphorylation of Rho by rhodopsin kinase is required for the recovery of sensitivity after intense illumination.  $Ca^{2+}$  ions act through  $Ca^{2+}$ -binding proteins and are implicated in the desensitization of phototransduction. Recoverin is implicated in the regulation of rhodopsin kinase activity that contributes to the adaptation to background illumination in retinal photoreceptor cells. Recoverin, a  $Ca^{2+}$ -binding photoreceptor protein, is recognized as an autoantigen of cancer-associated retinopathy (CAR), which is a rare paraneoplastic neurological syndrome characterized by the degeneration of retinal photoreceptors and associated with small-cell lung cancer. Recoverin is a heterogeneously myristoylated protein that inhibits rhodopsin kinase by inhibiting its phosphorylation.  $Ca^{2+}$  is required for Recoverin to bind rhodopsin kinase. In addition, the binding of Recoverin-rhodopsin kinase is weakened by autophosphorylation of the kinase and is strengthened by the presence of ADP. Upon accommodating two  $Ca^{2+}$  ions, Recoverin extrudes a myristoyl group and associates with the lipid bilayer membrane.

## CHROMOSOMAL LOCATION

Genetic locus: RCVRN (human) mapping to 17p13.1; Rcvrn (mouse) mapping to 11 B3.

## SOURCE

Recoverin (H-100) is a rabbit polyclonal antibody raised against amino acids 48-147 mapping within an internal region of Recoverin of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

Recoverin (H-100) is recommended for detection of Recoverin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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).

Recoverin (H-100) is also recommended for detection of Recoverin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Recoverin siRNA (h): sc-40905, Recoverin siRNA (m): sc-40906, Recoverin shRNA Plasmid (h): sc-40905-SH, Recoverin shRNA Plasmid (m): sc-40906-SH, Recoverin shRNA (h) Lentiviral Particles: sc-40905-V and Recoverin shRNA (m) Lentiviral Particles: sc-40906-V.

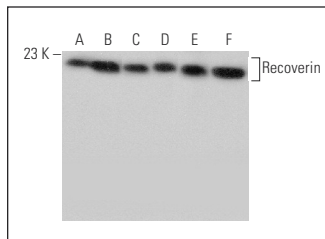
Molecular Weight of Recoverin: 23 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, human placenta extract: sc-363772 or human eye extract: sc-364223.

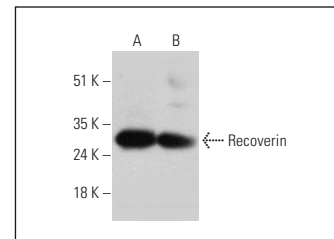
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Recoverin (H-100): sc-28849. Western blot analysis of Recoverin expression in RAW 264.7 (A), NIH/3T3 (B), PC-12 (C), HEK293 (D), Y79 (E) and J774.A1 (F) whole cell lysates.



Recoverin (H-100): sc-28849. Western blot analysis of Recoverin expression in human placenta (A) and human eye (B) tissue extracts.

## 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.



Try **Recoverin (6A55CD6): sc-53520**, our highly recommended monoclonal alternative to Recoverin (H-100).