

Retinal RX (H-120): sc-98609

BACKGROUND

The homeobox DNA-binding domain is a 60 amino acid motif that is conserved among many species and functions to bind DNA via a helix-turn-helix structure, thereby playing a role in transcriptional regulation and the control of gene expression. Retinal RX, also known as RAX (retina and anterior neural fold homeobox), MCOP3 or RX, is a 346 amino acid protein that localizes to the nucleus and contains one OAR domain and one homeobox DNA-binding domain. Expressed in developing eye tissue, as well as in adult retina tissue, Retinal RX plays a crucial role in eye formation, specifically by regulating the specification and proliferation of retinal cells. Defects in the gene encoding Retinal RX are the cause of microphthalmia isolated type 3 (MCOP3), a heterogeneous disorder that is characterized by opacities of the cornea and lens and scarring of the retina and choroid.

REFERENCES

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- Kimura, A., et al. 2000. Both PCE-1/RX and OTX/CRX interactions are necessary for photoreceptor-specific gene expression. *J. Biol. Chem.* 275: 1152-1160.
- Mikkola, I., et al. 2001. Superactivation of Pax-6-mediated transactivation from paired domain-binding sites by DNA-independent recruitment of different homeodomain proteins. *J. Biol. Chem.* 276: 4109-4118.
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- Lequeux, L., et al. 2008. Confirmation of RAX gene involvement in human anophthalmia. *Clin. Genet.* 74: 392-395.
- Danno, H., et al. 2008. Molecular links among the causative genes for ocular malformation: Otx2 and Sox2 coregulate Rax expression. *Proc. Natl. Acad. Sci. USA* 105: 5408-5413.

CHROMOSOMAL LOCATION

Genetic locus: RAX (human) mapping to 18q21.32; Rax (mouse) mapping to 18 E1.

SOURCE

Retinal RX (H-120) is a rabbit polyclonal antibody raised against amino acids 1-120 mapping at the N-terminus of Retinal RX of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98609 X, 200 µg/0.1 ml.

RESEARCH USE

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

APPLICATIONS

Retinal RX (H-120) is recommended for detection of Retinal RX of mouse, rat and human 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)], 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).

Retinal RX (H-120) is also recommended for detection of Retinal RX in additional species, including canine.

Suitable for use as control antibody for Retinal RX siRNA (h): sc-76390, Retinal RX siRNA (m): sc-76391, Retinal RX shRNA Plasmid (h): sc-76390-SH, Retinal RX shRNA Plasmid (m): sc-76391-SH, Retinal RX shRNA (h) Lentiviral Particles: sc-76390-V and Retinal RX shRNA (m) Lentiviral Particles: sc-76391-V.

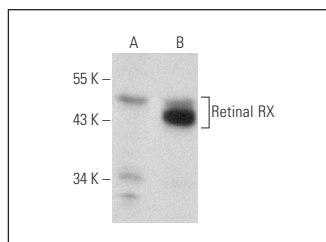
Retinal RX (H-120) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of Retinal RX: 37 kDa.

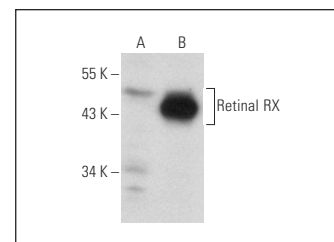
Molecular Weight (observed) of Retinal RX: 21-37 kDa.

Positive Controls: Y79 nuclear extract: sc-2126, Retinal RX (m): 293T Lysate: sc-123075 or Jurkat whole cell lysate: sc-2204.

DATA



Retinal RX (H-120): sc-98609. Western blot analysis of Retinal RX expression in non-transfected: sc-117752 (A) and mouse Retinal RX transfected: sc-123075 (B) 293T whole cell lysates.



Retinal RX (H-120): sc-98609. Western blot analysis of Retinal RX expression in non-transfected: sc-117752 (A) and mouse Retinal RX transfected: sc-123076 (B) 293T whole cell lysates.

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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
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Try **Retinal RX (G-12): sc-271889** or **Retinal RX (H-7): sc-376837**, our highly recommended monoclonal alternatives to Retinal RX (H-120).