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- Gefahrgutzuschlag
- Expressversand

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# Chx10 (m): 293T Lysate: sc-119256

## BACKGROUND

Chx10, for *ceh-10* homeodomain containing homolog, is also known as RET1 and HOX10, and is closely related to the homeodomain of the homeobox gene *ceh-10* from the nematode *Caenorhabditis elegans*. Chx10 is an essential component in the network of genes required for the development of the mammalian eye, with profound effects on retinal progenitor proliferation and bipolar cell specification or differentiation. Chx10 is expressed in the early retinal neuroepithelium, is restricted to bipolar cells and is maintained at a low level in bipolar cells of the mature retina. Human Chx10 is also expressed in the inner nuclear layer of the mature retina. Expression patterns implicate critical roles in the formation of the neuroretina and in the development and maintenance of the inner nuclear layer. Chx10 is expressed at high levels in uncommitted retinal progenitor cells and mature bipolar cells.

## REFERENCES

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- Svendsen, P.C. and McGhee, J.D. 1995. The *C. elegans* neuronally expressed homeobox gene *ceh-10* is closely related to genes expressed in the vertebrate eye. *Development* 121: 1253-1262.
- Burmeister, M., Novak, J., Liang, M.Y., Basu, S., Ploder, L., Hawes, N.L., Vidgen, D., Hoover, F., Goldman, D., Kalnins, V.I., Roderick, T.H., Taylor, B.A., Hankin, M.H. and McInnes, R.R. 1996. Ocular retardation mouse caused by Chx10 homeobox null allele: impaired retinal progenitor proliferation and bipolar cell differentiation. *Nat. Genet.* 12: 376-384.
- Chen, C.M. and Cepko, C.L. 2000. Expression of Chx10 and Chx10-1 in the developing chicken retina. *Mech. Dev.* 90: 293-297.
- Ferda Percin, E., Ploder, L.A., Yu, J.J., Arici, K., Horsford, D.J., Rutherford, A., Bapat, B., Cox, D.W., Duncan, A.M., Kalnins, V.I., Kocak-Altintas, A., Sowden, J.C., Traboulsi, E., Sarfarazi, M. and McInnes, R.R. 2000. Human microphthalmia associated with mutations in the retinal homeobox gene Chx10. *Nat. Genet.* 25: 397-401.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 142993. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- LocusLink Report (LocusID: 1148). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## CHROMOSOMAL LOCATION

Genetic locus: *Vsx2* (mouse) mapping to 12 D1.

## PRODUCT

Chx10 (m): 293T Lysate represents a lysate of mouse Chx10 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## APPLICATIONS

Chx10 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Chx10 antibodies. Recommended use: 10-20 µl per lane.

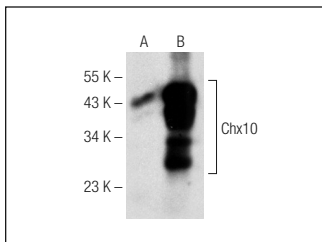
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Chx10 (E-12): sc-365519 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Chx10 expression in Chx10 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

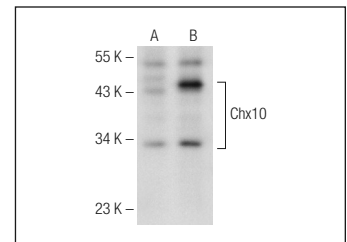
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-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.

## DATA



Chx10 (E-12): sc-365519. Western blot analysis of Chx10 expression in non-transfected: sc-117752 (A) and mouse Chx10 transfected: sc-119256 (B) 293T whole cell lysates.



Chx10 (D-11): sc-374151. Western blot analysis of Chx10 expression in non-transfected: sc-117752 (A) and mouse Chx10 transfected: sc-119256 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

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