

# VSX1 (m): 293T Lysate: sc-127778

## BACKGROUND

Like other "paired-like" homeodomain family members, the visual system homeobox gene 1 (VSX1) is instrumental in craniofacial and ocular development; VSX1 plays a distinct role in retinal development. Also known as RINX (retinal inner nuclear layer homeobox), the VSX1 gene is expressed in embryonic craniofacial structures and in the adult retina. VSX1 is abundantly expressed in the inner nuclear layer (INL) of the retina. In mice, *Vsx1* first detected in the bipolar cells of the retina five days postnatal. The VSX1 gene is also expressed in WERI, a retinoblastoma cell line that expresses retinal cone genes. The human VSX1 gene maps to chromosome 20p11.21 and encodes a 365 amino acid protein with five known splice variants. VSX1 mutations are implicated in two distinct corneal dystrophies, posterior polymorphous dystrophy (PPD) and keratoconus.

## REFERENCES

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2. Hayashi, T., Huang, J. and Deeb, S.S. 2000. RINX(VSX1), a novel homeobox gene expressed in the inner nuclear layer of the adult retina. *Genomics* 67: 128-139.
3. Chow, R.L., Snow, B., Novak, J., Looser, J., Freund, C., Vidgen, D., Ploder, L. and McInnes, R.R. 2001. VSX1, a rapidly evolving paired-like homeobox gene expressed in cone bipolar cells. *Mech. Dev.* 109: 315-322.
4. Heon, E., Greenberg, A., Kopp, K.K., Rootman, D., Vincent, A.L., Billingsley, G., Priston, M., Dorval, K.M., Chow, R.L., McInnes, R.R., Heathcote, G., Westall, C., Sutphin, J.E., Semina, E., Bremner, R. and Stone, E.M. 2002. VSX1: a gene for posterior polymorphous dystrophy and keratoconus. *Hum. Mol. Genet.* 11: 1029-1036.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605020. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: *Vsx1* (mouse) mapping to 2 G3.

## PRODUCT

VSX1 (m): 293T Lysate represents a lysate of mouse VSX1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

VSX1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive VSX1 antibodies. Recommended use: 10-20 µl per lane.

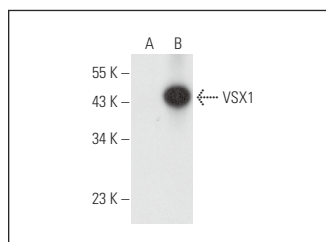
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

VSX1 (G-11): sc-393699 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse VSX1 expression in VSX1 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



VSX1 (G-11): sc-393699. Western blot analysis of VSX1 expression in non-transfected: sc-117752 (A) and mouse VSX1 transfected: sc-127778 (B) 293T whole cell lysates.

## 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.

## 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.