



## EURL siRNA (m): sc-144960

### BACKGROUND

First isolated in *Gallus gallus* retina and lens, EURL (early undifferentiated retina and lens), also known as C21orf91 of YG81, is a 297 amino acid protein that contains a putative carboxy-terminal coiled-coil domain. With highest expression in embryonic dorsal retina and, during later embryonic stages, the anterior epithelial cells of the lens, it is suspected that EURL may play a role in cell determination and differentiation. The gene encoding EURL maps to the long arm of chromosome 21, which houses approximately 300 genes and comprises nearly 1.5% of the human genome. Chromosome 21-associated disorders include Alzheimer's disease, amyotrophic lateral sclerosis and, most notably, Down syndrome (also known as trisomy 21).

### REFERENCES

1. Yancey, S.B., et al. 1992. Spatial and temporal patterns of distribution of the gap junction protein connexin43 during mouse gastrulation and organogenesis. *Development* 114: 203-212.
2. Wen, Y., et al. 1995. Lens epithelial cell mRNA, II. Expression of a mRNA encoding a lipid-binding protein in rat lens epithelial cells. *Gene* 158: 269-274.
3. Mishima, N., et al. 1998. Chicken Eyes absent 2 gene: isolation and expression pattern during development. *Int. J. Dev. Biol.* 42: 1109-1115.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 190685. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Godbout, R., et al. 2003. Isolation of a novel cDNA enriched in the undifferentiated chick retina and lens. *Dev. Dyn.* 227: 409-415.
6. Levine, S., et al. 2008. Systemic pathology in aged mouse models of Down's syndrome and Alzheimer's disease. *Exp. Mol. Pathol.* 6:18-22.

### CHROMOSOMAL LOCATION

Genetic locus: D16Ert472e (mouse) mapping to 16 C3.1.

### PRODUCT

EURL siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see EURL shRNA Plasmid (m): sc-144960-SH and EURL shRNA (m) Lentiviral Particles: sc-144960-V as alternate gene silencing products.

For independent verification of EURL (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-144960A, sc-144960B and sc-144960C.

### 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.

### STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

### APPLICATIONS

EURL siRNA (m) is recommended for the inhibition of EURL expression in mouse cells.

### SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10  $\mu$ M in 66  $\mu$ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

### RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor EURL gene expression knockdown using RT-PCR Primer: EURL (m)-PR: sc-144960-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.