SANTA CRUZ BIOTECHNOLOGY, INC.

SERHL siRNA (m): sc-63013

BACKGROUND

Members of the AB hydrolase superfamily have diverse catalytic functions and play a crucial role in the metabolism of lipids. SERHL (serine hydrolase-like), also known as SERHL2 (serine hydrolase-like 2), is a ubiquitously expressed 314 amino acid member of the AB hydrolase superfamily. Localized to peroxisomes and to the perinuclear region of the cytoplasm, SERHL2 is thought to be involved in muscle hypertrophy; a phenomenon characterized by growth and increase in size of muscle cells in response to mechanical stress or passive stretch. SERHL is a probable serine hydrolase that is expressed at normal levels during muscle development and is overexpressed in response to skeletal muscle stretch *in vivo*. Expression of SERHL is upregulated in breast cancer cells, suggesting a possible role in carcinogenesis. Three isoforms of exist due to alternative splicing events.

REFERENCES

1. Kemp, T.J., Sadusky, T.J., Simon, M., Brown, R., Eastwood, M., Sassoon, D.A. and Coulton, G.R. 2001. Identification of a novel stretch-responsive skeletal muscle gene (Smpx). Genomics 72: 260-271.
2. Sadusky, T.J., Kemp, T.J., Simon, M., Carey, N. and Coulton, G.R. 2001. Identification of Serhl, a new member of the serine hydrolase family induced by passive stretch of skeletal muscle *in vivo*. Genomics 73: 38-49.
3. Okerberg, E.S., Wu, J., Zhang, B., Samii, B., Blackford, K., Winn, D.T., Shreder, K.R., Burbaum, J.J. and Patricelli, M.P. 2005. High-resolution functional proteomics by active-site peptide profiling. Proc. Natl. Acad. Sci. USA 102: 4996-5001.
4. Lacroix, M. 2006. Significance, detection and markers of disseminated breast cancer cells. Endocr. Relat. Cancer 13: 1033-1067.
5. Hawkins, J., Mahony, D., Maetschke, S., Wakabayashi, M., Teasdale, R.D. and Boden, M. 2007. Identifying novel peroxisomal proteins. Proteins 69: 606-616.

CHROMOSOMAL LOCATION

Genetic locus: Serhl (mouse) mapping to 15 E1.

PRODUCT

SERHL 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SERHL shRNA Plasmid (m): sc-63013-SH and SERHL shRNA (m) Lentiviral Particles: sc-63013-V as alternate gene silencing products.

For independent verification of SERHL (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-63013A, sc-63013B and sc-63013C.

PROTOCOLS

See our web site at 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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

SERHL siRNA (m) is recommended for the inhibition of SERHL 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 µM in 66 µl. 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 SERHL gene expression knockdown using RT-PCR Primer: SERHL (m)-PR: sc-63013-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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