SANTA CRUZ BIOTECHNOLOGY, INC.

# LZTFL1 siRNA (h): sc-77961

## BACKGROUND

LZTFL1 (leucine zipper transcription factor-like protein 1) is a 299 amino acid protein that shares 90% sequence identity with its mouse counterpart. While LZTFL1 is expressed in liver, brain, lung and kidney during early development, it is found in testis, heart, thymus, pancreas, ovary, prostate, colon, skeletal muscle and small intestine in adult tissues. LZTFL1 has a leucine zipper pattern and several coiled-coil domains, suggesting a possible role in transcriptional regulation. The gene encoding LZTFL1 is located in a tumor suppressor region on chromosome 3, indicating that LZTFL1 may be a potential tumor suppressor. Two isoforms of LZTFL1 exist due to alternative polyadenylation events.

## REFERENCES


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3. Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc. Natl. Acad. Sci. USA 99: 16899-16903.
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5. Sakurai, T., Ogasawara, J., Kizaki, T., Ishibashi, Y., Fujiwara, T., Akagawa, K., Izawa, T., Oh-ishi, S., Haga, S. and Ohno, H. 2011. Involvement of leucine zipper transcription factor-like protein 1 (Lztfl1) in the attenuation of cognitive impairment by exercise training. Biochem. Biophys. Res. Commun. 416: 125-129.


## CHROMOSOMAL LOCATION

Genetic locus: LZTFL1 (human) mapping to 3p21.31.

## PRODUCT

LZTFL1 siRNA (h) 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 LZTFL1 shRNA Plasmid (h): sc-77961-SH and LZTFL1 shRNA (h) Lentiviral Particles: sc-77961-V as alternate gene silencing products.

For independent verification of LZTFL1 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-77961A, sc-77961B and sc-77961C.

## 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

LZTFL1 siRNA (h) is recommended for the inhibition of LZTFL1 expression in human 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.

## GENE EXPRESSION MONITORING

LZTFL1 (C-6): sc-376022 is recommended as a control antibody for monitoring of LZTFL1 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor LZTFL1 gene expression knockdown using RT-PCR Primer: LZTFL1 (h)-PR: sc-77961-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## RESEARH USE

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