SANTA CRUZ BIOTECHNOLOGY, INC.

IGFL3 siRNA (h): sc-97594

BACKGROUND

The Insulin gene family, comprised of Insulin, relaxin and Insulin-like growth factors I and II (IGF-I and IGF-II), represents a group of structurally related polypeptides whose biological functions have diverged. The IGFs, or somatomedins, constitute a class of polypeptides that have a key role in pre-adolescent mammalian growth. IGFL3 (IGF-like family member 3), also known as UNQ483, is a 125 amino acid secreted protein that belongs to the IGF family and is thought to play a role in energy metabolism and growth and developmental events. Expressed at high levels in brain tissue, IGFL3 contains two CC motifs and 11 regularly spaced cysteine residues and is encoded by a gene which maps to an IGFL cluster on chromosome 19.

REFERENCES

1. Aro, A.L., Savikko, J., Pulkkinen, V. and Willebrand, E. 2002. Expression of Insulin-like growth factors IGF-I and IGF-II and their receptors during the growth and megakaryocytic differentiation of K562 cells. Leuk. Res. 26: 831-837.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610546. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Clark, H.F., Gurney, A.L., Abaya, E., Baker, K., Baldwin, D., Brush, J., Chen, J., Chow, B., Chui, C., Crowley, C., Currell, B., Deuel, B., Dowd, P., Eaton, D., Foster, J., Grimaldi, C., Gu, Q., Hass, P.E., Heldens, S., Huang, A., Kim, H.S., Klimowski, L., Jin, Y., Johnson, S., Lee, J., Lewis, L., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. Genome Res. 13: 2265-2270.
4. Zhang, Z. and Henzel, W.J. 2004. Signal peptide prediction based on analysis of experimentally verified cleavage sites. Protein Sci. 13: 2819-2824.

CHROMOSOMAL LOCATION

Genetic locus: IGFL3 (human) mapping to 19q13.32.

PRODUCT

IGFL3 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 IGFL3 shRNA Plasmid (h): sc-97594-SH and IGFL3 shRNA (h) Lentiviral Particles: sc-97594-V as alternate gene silencing products.

For independent verification of IGFL3 (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-97594A, sc-97594B and sc-97594C.

RESEARCH USE

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

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

IGFL3 siRNA (h) is recommended for the inhibition of IGFL3 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor IGFL3 gene expression knockdown using RT-PCR Primer: IGFL3 (h)-PR: sc-97594-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.