SANTA CRUZ BIOTECHNOLOGY, INC.

HBS1L siRNA (h): sc-95195

BACKGROUND

HBS1L (HBS1-like), also known as EF-1α or ERFS, is a 684 amino acid protein that belongs to the GTP-binding elongation factor family and exists as multiple alternatively spliced isoforms. Expressed in kidney, brain, heart, placenta, liver, muscle and pancreas, HSB1L is thought to play a role in controlling fetal hemoglobin levels, specifically influencing platelet, monocyte and erythrocyte hemoglobin content. The gene encoding HBS1L maps to a locus on human chromosome 6 that is associated with sickle cell anemia and β-thalassemia, suggesting a role for HBS1L in the pathogenesis of blood disorders.

REFERENCES

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4. Thein, S.L., et al. 2007. Intergenic variants of HBS1L-MYB are responsible for a major quantitative trait locus on chromosome 6q23 influencing fetal hemoglobin levels in adults. Proc. Natl. Acad. Sci. USA 104: 11346-11351.
5. Pandit, R.A., et al. 2008. Association of SNP in exon 1 of HBS1L with hemoglobin F level in β^0-thalassemia/hemoglobin E. Int. J. Hematol. 88: 357-361.
6. Lettre, G., et al. 2008. DNA polymorphisms at the BCL11A, HBS1L-MYB, and β-globin loci associate with fetal hemoglobin levels and pain crises in sickle cell disease. Proc. Natl. Acad. Sci. USA 105: 11869-11874.
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CHROMOSOMAL LOCATION

Genetic locus: HBS1L (human) mapping to 6q23.3.

PRODUCT

HBS1L 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 HBS1L shRNA Plasmid (h): sc-95195-SH and HBS1L shRNA (h) Lentiviral Particles: sc-95195-V as alternate gene silencing products.

For independent verification of HBS1L (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-95195A, sc-95195B and sc-95195C.

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

HBS1L siRNA (h) is recommended for the inhibition of HBS1L 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 HBS1L gene expression knockdown using RT-PCR Primer: HBS1L (h)-PR: sc-95195-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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.