



# SZABO SCANDIC

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## Produktinformation



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Diagnostik & molekulare Diagnostik



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### Zuschläge

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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## HBS1L siRNA (m): sc-145902

### BACKGROUND

HBS1L (HBS1-like), also known as EF-1 $\alpha$  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, HBS1L 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  $\beta$ -thalassemia, suggesting a role for HBS1L in the pathogenesis of blood disorders.

### REFERENCES

1. Wallrapp, C., et al. 1998. The product of the mammalian orthologue of the *Saccharomyces cerevisiae* HBS1 gene is phylogenetically related to eukaryotic release factor 3 (eRF3) but does not carry eRF3-like activity. *FEBS Lett.* 440: 387-392.
2. Kikuno, R., et al. 1999. Prediction of the coding sequences of unidentified human genes. XIV. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 6: 197-205.
3. Menzel, S., et al. 2007. The HBS1L-MYB intergenic region on chromosome 6q23.3 influences erythrocyte, platelet, and monocyte counts in humans. *Blood* 110: 3624-3626.
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.
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6. Lettre, G., et al. 2008. DNA polymorphisms at the BCL11A, HBS1L-MYB, and  $\beta$ -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 (mouse) mapping to 10 A3.

### PRODUCT

HBS1L siRNA (m) is a target-specific 19-25 nt siRNA 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 HBS1L shRNA Plasmid (m): sc-145902-SH and HBS1L shRNA (m) Lentiviral Particles: sc-145902-V as alternate gene silencing products.

### 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

HBS1L siRNA (m) is recommended for the inhibition of HBS1L 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 HBS1L gene expression knockdown using RT-PCR Primer: HBS1L (m)-PR: sc-145902-PR (20  $\mu$ l). 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.