SANTA CRUZ BIOTECHNOLOGY, INC.

# HESL siRNA (m): sc-145948

## BACKGROUND

The *Drosophila* hairy and Enhancer of split genes encode basic helix-loop-helix (bHLH) transcriptional repressors that function in the Notch signaling pathway and control segmentation and neural development during embryogenesis. The Notch signaling pathway is thought to maintain stem cells through transcriptional activation of HES/HEY family members to repress tissue-specific transcription factors. HESL (HES-like), also known as Mgn or HELT (HES/HEY-like transcription factor), is a 327 amino acid nuclear protein belonging to the HEY family. Containing a basic helix-loop-helix (bHLH) domain and an Orange domain, HESL self-associates and interacts with HES5 and HRT2. HESL is considered a transcriptional repressor that binds to the canonical E box sequence 5'-CACGCG-3'. HESL exists as two isoforms produced by alternative splicing events.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: Helt (mouse) mapping to 8 B1.1.

## RESEARCH USE

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

## PRODUCT

HESL siRNA (m) is a pool of 2 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 HESL shRNA Plasmid (m): sc-145948-SH and HESL shRNA (m) Lentiviral Particles: sc-145948-V as alternate gene silencing products.

For independent verification of HESL (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-145948A and sc-145948B.

## 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

HESL siRNA (m) is recommended for the inhibition of HESL 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 HESL gene expression knockdown using RT-PCR Primer: HESL (m)-PR: sc-145948-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## PROTOCOLS

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