SANTA CRUZ BIOTECHNOLOGY, INC.

HSGT1 siRNA (m): sc-146093

BACKGROUND

The *Drosophila* ecdysone (Ecd) protein is a steroid hormone that is responsible for the coordination of larval molting, embryogenesis and metamorphosis. Ecdysoneless1 (Ecd1) is a mutation in the *Drosophila* genome that disrupts the formation of Ecd, thus causing reproductive and developmental defects. HSGT1, also known as ECD (ecdysoneless homolog), hECD or SGT1 (suppressor of GCR2), is a 644 amino acid ortholog of the *Drosophila* Ecd1 protein. Expressed in heart and skeletal muscle, HSGT1 is thought to function as a p53-interacting protein that supports the stability and function of p53 and may regulate p53 expression.

REFERENCES

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5. Karpova, E.K., Gruntenko, N.E. and Raushenbakh, I.I.u. 2005. The ecdysoneless1 gene regulates metabolism of the juvenile hormone and dopamine in *Drosophila melanogaster.* Genetika 41: 1480-1486.
6. Zhang, Y., Chen, J., Gurumurthy, C.B., Kim, J., Bhat, I., Gao, Q., Dimri, G., Lee, S.W., Band, H. and Band, V. 2006. The human orthologue of *Drosophila* ecdysoneless protein interacts with p53 and regulates its function. Cancer Res. 66: 7167-7175.
7. Kainou, T., Shinzato, T., Sasaki, K., Mitsui, Y., Giga-Hama, Y., Kumagai, H. and Uemura, H. 2006. Spsgt1, a new essential gene of *Schizosaccharomyces pombe*, is involved in carbohydrate metabolism. Yeast 23: 35-53.

CHROMOSOMAL LOCATION

Genetic locus: Ecd (mouse) mapping to 14 A3.

PRODUCT

HSGT1 siRNA (m) 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 HSGT1 shRNA Plasmid (m): sc-146093-SH and HSGT1 shRNA (m) Lentiviral Particles: sc-146093-V as alternate gene silencing products.

For independent verification of HSGT1 (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-146093A, sc-146093B and sc-146093C.

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

HSGT1 siRNA (m) is recommended for the inhibition of HSGT1 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 HSGT1 gene expression knockdown using RT-PCR Primer: HSGT1 (m)-PR: sc-146093-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.