



TIPUH1 siRNA (h): sc-93117

BACKGROUND

TIPUH1, also known as ZNF689 (zinc finger protein 689), is a 500 amino acid nuclear protein that belongs to the Krüppel C₂H₂-type zinc-finger protein family. TIPUH1 contains 12 C₂H₂-type zinc fingers, one KRAB domain and may be involved in transcriptional regulation. The gene that encodes TIPUH1 consists of nearly 8,000 bases and maps to human chromosome 16p11.2. Encoding over 900 genes and consisting of approximately 90 million base pairs, chromosome 16 makes up nearly 3% of the human genome and is associated with a variety of genetic disorders. The GAN gene is located on chromosome 16 and, when mutated, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. Alterations in the CREB gene and NOD2 gene, both of which are located on chromosome 16, results in Rubinstein-Taybi syndrome and Crohn's disease, respectively. An association with systemic lupus erythematosus and a number of other autoimmune disorders with the pericentromeric region of chromosome 16 has led to the identification of SLC5A11 as a potential autoimmune modifier.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ZNF689 (human) mapping to 16p11.2.

PROTOCOLS

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

PRODUCT

TIPUH1 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TIPUH1 shRNA Plasmid (h): sc-93117-SH and TIPUH1 shRNA (h) Lentiviral Particles: sc-93117-V as alternate gene silencing products.

For independent verification of TIPUH1 (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-93117A, sc-93117B and sc-93117C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

TIPUH1 siRNA (h) is recommended for the inhibition of TIPUH1 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 μ M in 66 μ 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 TIPUH1 gene expression knockdown using RT-PCR Primer: TIPUH1 (h)-PR: sc-93117-PR (20 μ 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.