SANTA CRUZ BIOTECHNOLOGY, INC.

HSZFP36 siRNA (h): sc-97598

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. The majority of zinc-finger proteins contain a Kruppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. HSZFP36, also known as ZNF823 (zinc-finger protein 823) or ZFP36, is a 610 amino acid member of the Krüppel C_2H_2-type zinc-finger protein family and is thought be involved in transcriptional regulation. Localized to the nucleus, HSZFP36 contains one KRAB domain and 16 C_2H_2-type zinc fingers through which it may convey DNA, RNA and protein binding capabilities.

REFERENCES

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2. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. New Biol. 2: 363-374.
3. Huebner, K., et al. 1991. Twenty-seven nonoverlapping zinc-finger cDNAs from human T cells map to nine different chromosomes with apparent clustering. Am. J. Hum. Genet. 48: 726-740.
4. Rousseau-Merck, M.F., et al. 1994. Chromosomal localization of 9 KOX zinc-finger genes: physical linkages suggest clustering of KOX genes on chromosomes 12, 16, and 19. Hum. Genet. 92: 583-587.
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7. Englbrecht, C.C., et al. 2004. Conservation, diversification and expansion of C_2H_2 zinc-finger proteins in the *Arabidopsis thaliana* genome. BMC Genomics 5: 39-39.

CHROMOSOMAL LOCATION

Genetic locus: ZNF823 (human) mapping to 19p13.2.

PRODUCT

HSZFP36 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 HSZFP36 shRNA Plasmid (h): sc-97598-SH and HSZFP36 shRNA (h) Lentiviral Particles: sc-97598-V as alternate gene silencing products.

For independent verification of HSZFP36 (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-97598A, sc-97598B and sc-97598C.

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

HSZFP36 siRNA (h) is recommended for the inhibition of HSZFP36 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 HSZFP36 gene expression knockdown using RT-PCR Primer: HSZFP36 (h)-PR: sc-97598-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.