SANTA CRUZ BIOTECHNOLOGY, INC.

ZFP106 siRNA (h): sc-89920

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 Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. ZFP106 (zinc finger protein 106), also known as zinc finger protein 474, is a 1,883 amino acid human homolog of the mouse Zfp106 protein and is a member of the Krüppel C_2H_2-type zinc-finger family. Localized to the nucleus, ZFP106 contains two C_2H_2-type zinc fingers and is thought to be involved in transcriptional regulation.

REFERENCES

1. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. New Biol. 2: 363-374.
2. Walter, L. and Günther, E. 2000. Physical mapping and evolution of the centromeric class I gene-containing region of the rat MHC. Immunogenetics 51: 829-837.
3. Durand, S., Abadie, P., Angeletti, S. and Genti-Raimondi, S. 2003. Identification of multiple differentially expressed messenger RNAs in normal and pathological trophoblast. Placenta 24: 209-218.
4. Grasberger, H., Ye, H., Mashima, H. and Bell, G.I. 2005. Dual promoter structure of ZFP106: regulation by myogenin and nuclear respiratory factor-1. Gene 344: 143-159.
5. Grasberger, H. and Bell, G.I. 2005. Subcellular recruitment by TSG118 and TSPYL implicates a role for zinc finger protein 106 in a novel developmental pathway. Int. J. Biochem. Cell Biol. 37: 1421-1437.
6. Liu, J. and Stormo, G.D. 2008. Context-dependent DNA recognition code for C_2H_2 zinc-finger transcription factors. Bioinformatics 24: 1850-1857.

CHROMOSOMAL LOCATION

Genetic locus: ZNF106 (human) mapping to 15q15.1.

PRODUCT

ZFP106 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 ZFP106 shRNA Plasmid (h): sc-89920-SH and ZFP106 shRNA (h) Lentiviral Particles: sc-89920-V as alternate gene silencing products.

For independent verification of ZFP106 (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-89920A, sc-89920B and sc-89920C.

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.

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

ZFP106 siRNA (h) is recommended for the inhibition of ZFP106 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 ZFP106 gene expression knockdown using RT-PCR Primer: ZFP106 (h)-PR: sc-89920-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.