

ZFP36L3 siRNA (m): sc-155551

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. ZFP36L3 (zinc finger protein 36, C3H type-like 3) is a 725 amino acid membrane protein that is specifically expressed in placenta and extraembryonic tissues. Containing two C3H1-type zinc fingers, ZFP36L3 plays a role in promoting deadenylation and degradation of target mRNAs by binding to the AU-rich element (ARE) in the 3'-UTR. ZFP36L3 is encoded by a gene located on mouse chromosome X A5.

REFERENCES

1. Mack, H.G., et al. 1997. A search for a mammalian homologue of the *Drosophila* photoreceptor development gene glass yields Zfp64, a zinc finger encoding gene which maps to the distal end of mouse chromosome 2. *Gene* 185: 11-17.
2. Grishin, A.V., et al. 1998. Mot3, a Zn finger transcription factor that modulates gene expression and attenuates mating pheromone signaling in *Saccharomyces cerevisiae*. *Genetics* 149: 879-892.
3. Deloukas, P., et al. 2001. The DNA sequence and comparative analysis of human chromosome 20. *Nature* 414: 865-871.
4. Borozdin, W., et al. 2007. Multigene deletions on chromosome 20q13.13-q13.2 including SALL4 result in an expanded phenotype of Okihiro syndrome plus developmental delay. *Hum. Mutat.* 28: 830-830.
5. Okada, G., et al. 2008. Differential display analysis of gene expression in female-to-male sex-reversing gonads of the frog *Rana rugosa*. *Gen. Comp. Endocrinol.* 155: 623-634.

CHROMOSOMAL LOCATION

Genetic locus: Zfp36l3 (mouse) mapping to X A5.

PRODUCT

ZFP36L3 siRNA (m) is a target-specific 19-25 nt siRNA 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 ZFP36L3 shRNA Plasmid (m): sc-155551-SH and ZFP36L3 shRNA (m) Lentiviral Particles: sc-155551-V as alternate gene silencing 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 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

ZFP36L3 siRNA (m) is recommended for the inhibition of ZFP36L3 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 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 ZFP36L3 gene expression knockdown using RT-PCR Primer: ZFP36L3 (m)-PR: sc-155551-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.

PROTOCOLS

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