

ZNF445 siRNA (m): sc-155720

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. As a member of the Krüppel C₂H₂-type zinc-finger protein family, ZNF445 (zinc finger protein 445), also known as ZNF168 (zinc finger protein 168) and ZKSCAN15 (zinc finger protein with KRAB and SCAN domains 15), is a 1,031 amino acid nuclear protein that contains one KRAB domain, one SCAN box domain and 14 C₂H₂-type zinc fingers. ZNF445 is highly expressed in adult skeletal muscle and testis, while expressed at lower levels in small intestine, pancreas, colon, thymus, uterus and peripheral blood leukocytes. Overexpression of ZNF445 results in the activation of c-Jun and serum response element, suggesting a potential role in the MAPK signaling pathway.

REFERENCES

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7. Luo, K., Yuan, J., Shan, Y., Li, J., Xu, M., Cui, Y., Tang, W., Wan, B., Zhang, N., Wu, Y. and Yu, L. 2006. Activation of transcriptional activities of AP1 and SRE by a novel zinc finger protein ZNF445. *Gene* 367: 89-100.

CHROMOSOMAL LOCATION

Genetic locus: Zfp445 (mouse) mapping to 9 F4.

PRODUCT

ZNF445 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 ZNF445 shRNA Plasmid (m): sc-155720-SH and ZNF445 shRNA (m) Lentiviral Particles: sc-155720-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

ZNF445 siRNA (m) is recommended for the inhibition of ZNF445 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 ZNF445 gene expression knockdown using RT-PCR Primer: ZNF445 (m)-PR: sc-155720-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.