ZFP26 siRNA (m): sc-155539



The Power to Questio

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. Zinc finger protein 26 (ZFP26), also known as Zfp70 or KRAB15, is a 861 amino acid protein belonging to the Krüppel $\rm C_2H_2$ -type zinc-finger protein family. ZNF26 contains 23 $\rm C_2H_2$ -type zinc fingers and one KRAB domain. Localized to the nucleus, ZNF26 is involved in transcriptional regulation.

REFERENCES

- Chowdhury, K., Rohdewohld, H. and Gruss, P. 1988. Specific and ubiquitous expression of different Zn finger protein genes in the mouse. Nucleic Acids Res. 16: 9995-10011.
- Ihle, J.N., Smith-White, B., Sisson, B., Parker, D., Blair, D.G., Schultz, A., Kozak, C., Lunsford, R.D., Askew, D. and Weinstein, Y. 1989. Activation of the c-H-Ras proto-oncogene by retrovirus insertion and chromosomal rearrangement in a Moloney leukemia virus-induced T-cell leukemia. J. Virol. 63: 2959-2966.
- Bellefroid, E.J., Marine, J.C., Matera, A.G., Bourguignon, C., Desai, T., Healy, K.C., Bray-Ward, P., Martial, J.A., Ihle, J.N. and Ward, D.C. 1995.
 Emergence of the ZNF91 Krüppel-associated box-containing zinc finger gene family in the last common ancestor of anthropoidea. Proc. Natl. Acad. Sci. USA 92: 10757-10761.
- Marine, J.C., Gilbert, D.J., Bellefroid, E.J., Martial, J.A., Ihle, J.N., Copeland, N.G. and Jenkins, N.A. 1996. Chromosomal location of fifteen unique mouse KRAB-containing zinc finger loci. Mamm. Genome 7: 413-416.
- Agata, Y., Matsuda, E. and Shimizu, A. 1998. Rapid and efficient cloning of cDNAs encoding Krüppel-like zinc finger proteins by degenerate PCR. Gene 213: 55-64.
- Gray, P.A., Fu, H., Luo, P., Zhao, Q., Yu, J., Ferrari, A., Tenzen, T., Yuk, D.I., Tsung, E.F., Cai, Z., Alberta, J.A., Cheng, L.P., Liu, Y., Stenman, J.M., Valerius, M.T., Billings, N., Kim, H.A., Greenberg, M.E., McMahon, A.P., et al. 2004. Mouse brain organization revealed through direct genome-scale TF expression analysis. Science 306: 2255-2257.
- Millien, G., Beane, J., Lenburg, M., Tsao, P.N., Lu, J., Spira, A. and Ramirez, M.I. 2008. Characterization of the mid-foregut transcriptome identifies genes regulated during lung bud induction. Gene Expr. Patterns 8: 124-139.
- Fu, H., Cai, J., Clevers, H., Fast, E., Gray, S., Greenberg, R., Jain, M.K., Ma, Q., Qiu, M., Rowitch, D.H., Taylor, C.M. and Stiles, C.D. 2009. A genomewide screen for spatially restricted expression patterns identifies transcription factors that regulate glial development. J. Neurosci. 29: 11399-11408.

CHROMOSOMAL LOCATION

Genetic locus: Zfp26 (mouse) mapping to 9 A3.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

ZFP26 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 ZFP26 shRNA Plasmid (m): sc-155539-SH and ZFP26 shRNA (m) Lentiviral Particles: sc-155539-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

ZFP26 siRNA (m) is recommended for the inhibition of ZFP26 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 ZFP26 gene expression knockdown using RT-PCR Primer: ZFP26 (m)-PR: sc-155539-PR (20 μ I). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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