

ZNF622 siRNA (h): sc-91718

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. ZNF622 (zinc finger protein 622), also known as ZPR9 (zinc finger-like protein 9), is a 477 amino acid protein that localizes to both the nucleus and the cytoplasm. Expressed in liver, spleen, lung, kidney and brain, ZNF622 is thought to activate the bound transcription factor B-Myb and, through this activation, may play a role in embryonic development. ZNF622 contains two U1-type zinc fingers and exists as either a homodimer or a heterodimer that can be phosphorylated by MELK (maternal embryonic leucine zipper kinase). Overexpression of ZNF266 may be associated with liver metastases, carcinomas and colorectal carcinomas.

REFERENCES

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- Seong, H.A., et al. 2002. Phosphorylation of a novel zinc-finger-like protein, ZPR9, by murine protein serine/threonine kinase 38 (MPK38). *Biochem. J.* 361: 597-604.
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- Seong, H.A., et al. 2003. Enhancement of B-Myb transcriptional activity by ZPR9, a novel zinc-finger protein. *J. Biol. Chem.* 278: 9655-9662.
- Andersen, J.S., et al. 2005. Nucleolar proteome dynamics. *Nature* 433: 77-83.
- Kleivi, K., et al. 2007. Gene expression profiles of primary colorectal carcinomas, liver metastases, and carcinomas. *Mol. Cancer* 6: 2.

CHROMOSOMAL LOCATION

Genetic locus: ZNF622 (human) mapping to 5p15.1.

PRODUCT

ZNF622 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ZNF622 shRNA Plasmid (h): sc-91718-SH and ZNF622 shRNA (h) Lentiviral Particles: sc-91718-V as alternate gene silencing products.

For independent verification of ZNF622 (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-91718A, sc-91718B and sc-91718C.

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 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

ZNF622 siRNA (h) is recommended for the inhibition of ZNF622 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 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.

GENE EXPRESSION MONITORING

ZNF622 (314): sc-100980 is recommended as a control antibody for monitoring of ZNF622 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor ZNF622 gene expression knockdown using RT-PCR Primer: ZNF622 (h)-PR: sc-91718-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.