

ZC3H12C siRNA (m): sc-155462

BACKGROUND

The zinc finger CCCH domain-containing protein 12C (ZC3H12C), also known as KIAA1726 or MCP1P3 (MCP-induced protein 3), is an 883 amino acid protein that contains one C3H1-type zinc finger domain and belongs to the ZC3H12 family. ZC3H12C is suggested to function as an RNase, and thereby modifies levels of target RNA. Binding magnesium as a cofactor, ZC3H12C has been found to be induced in THP-1 cells when exposed to TNF α or IL-1. ZC3H12C is encoded by a gene that maps to human chromosome 11q22.3, which comprises approximately 4% of human genomic DNA and is considered a gene and disease association dense chromosome. The chromosome 11 encoded Atm gene is important for regulation of cell cycle arrest and apoptosis following double strand DNA breaks. Atm mutation leads to the disorder known as ataxia-telangiectasia.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Zc3h12c (mouse) mapping to 9 A5.3.

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.

PRODUCT

ZC3H12C siRNA (m) 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 ZC3H12C shRNA Plasmid (m): sc-155462-SH and ZC3H12C shRNA (m) Lentiviral Particles: sc-155462-V as alternate gene silencing products.

For independent verification of ZC3H12C (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-155462A, sc-155462B and sc-155462C.

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

ZC3H12C siRNA (m) is recommended for the inhibition of ZC3H12C 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 ZC3H12C gene expression knockdown using RT-PCR Primer: ZC3H12C (m)-PR: sc-155462-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.