MASK-BP3 siRNA (h): sc-91894



The Power to Question

BACKGROUND

Ankyrin (ANK) repeat-containing proteins are associated with a wide range of biological functions and participate in several processes, such as cell differentiation and transcriptional regulation. MASK-BP3 (MASK-4E binding protein 3), also known as multiple ankyrin repeats single KH domain protein isoform 2, is a 2,617 amino acid protein with one KH domain. The gene encoding MASK-BP3 is located on human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

- Dixon, M.J., Read, A.P., Donnai, D., Colley, A., Dixon, J. and Williamson, R. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. Am. J. Hum. Genet. 49: 17-22.
- Saltman, D.L., Dolganov, G.M., Warrington, J.A., Wasmuth, J.J. and Lovett, M. 1993. A physical map of 15 loci on human chromosome 5q23q33 by two-color fluorescence in situ hybridization. Genomics 16: 726-732.
- Poulin, F., Brueschke and A., Sonenberg, N. 2003. Gene fusion and overlapping reading frames in the mammalian genes for 4E-BP3 and MASK. J. Biol. Chem. 278: 52290-52297.
- Santos Duarte Ada, S., Traina, F., Favaro, P.M., Bassères, D.S., de Carvalho, I.C., Medina Sde, S., Costa, F.F. and Saad, S.T. 2005. Characterisation of a new splice variant of MASK-BP3(ARF) and MASK human genes, and their expression patterns during haematopoietic cell differentiation. Gene 363: 113-122.
- Du, H.Y., Idol, R., Robledo, S., Ivanovich, J., An, P., Londono-Vallejo, A., Wilson, D.B., Mason, P.J. and Bessler, M. 2007. Telomerase reverse transcriptase haploinsufficiency and telomere length in individuals with 5p- syndrome. Aging Cell 6: 689-697.

CHROMOSOMAL LOCATION

Genetic locus: ANKHD1-EIF4EBP3 (human) mapping to 5q31.3.

PRODUCT

MASK-BP3 siRNA (h) 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 μM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see MASK-BP3 shRNA Plasmid (h): sc-91894-SH and MASK-BP3 shRNA (h) Lentiviral Particles: sc-91894-V as alternate gene silencing products.

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.

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

MASK-BP3 siRNA (h) is recommended for the inhibition of MASK-BP3 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 µM in 66 µl. 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 MASK-BP3 gene expression knockdown using RT-PCR Primer: MASK-BP3 (h)-PR: sc-91894-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com