6330403K07Rik siRNA (m): sc-140433



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BACKGROUND

6330403K07Rik (RIKEN cDNA 6330403K07 gene), also known as UGS148, Al415455, AV161034 or RP23-83I13.10, is a 121 amino acid protein that is encoded by a gene mapping to mouse chromosome 11 B4. The human homolog to 6330403K07Rik, LOC728392, is a 119 amino acid uncharacterized protein, possibly related to Parkinson's disease and encoded on chromosome 17. Chromosome 17 makes up over 2.5% of the human genome with about 81 million bases encoding over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Chromosome 17 is also linked to neurofibromatosis, a condition characterized by neural and epidermal lesions, and dysregulated Schwann cell growth. Alexander disease, Birt-Hogg-Dube syndrome and Canavan disease are also associated with chromosome 17.

REFERENCES

- Welsch, M.J., Krunic, A. and Medenica, M.M. 2005. Birt-Hogg-Dube syndrome. Int. J. Dermatol. 44: 668-673.
- Nusbaum, R., Vogel, K.J. and Ready, K. 2006-2007. Susceptibility to breast cancer: hereditary syndromes and low penetrance genes. Breast Dis. 27: 21-50.
- Al-Dirbashi, O.Y., Rashed, M.S., Al-Qahtani, K., Al-Mokhadab, M.A., Kurdi, W. and Al-Sayed MA. 2007. Quantification of N-acetylaspartic acid in urine by LC-MS/MS for the diagnosis of Canavan disease. J. Inherit. Metab. Dis. 30: 612.
- 4. Dann, R.B., Kelley, J.L. and Zorn, K.K. 2007. Strategies for ovarian cancer prevention. Obstet. Gynecol. Clin. North Am. 34: 667-686.
- Farrell, C.J. and Plotkin, S.R. 2007. Genetic causes of brain tumors: neurofibromatosis, tuberous sclerosis, von Hippel-Lindau, and other syndromes. Neurol. Clin. 25: 925-946.
- Suela, J., Largo, C., Ferreira, B., Alvarez, S., Robledo, M., González-Neira, A., Calasanz, M.J. and Cigudosa, J.C. 2007. Neurofibromatosis 1, and not TP53, seems to be the main target of chromosome 17 deletions in *de novo* acute myeloid leukemia. J. Clin. Oncol. 25: 1151-1152.
- Tai, Y.C., Domchek, S., Parmigiani, G. and Chen, S. 2007. Breast cancer risk among male BRCA1 and BRCA2 mutation carriers. J. Natl. Cancer Inst. 99: 1811-1814.
- 8. Yan, J., Jiang, J., Lim, C.A., Wu, Q., Ng, H.H. and Chin, K.C. 2007. Blimp-1 regulates cell growth through repression of p53 transcription. Proc. Natl. Acad. Sci. USA 104: 1841-1846.
- 9. Murakami, N., Tsuchiya, T., Kanazawa, N., Tsujino, S. and Nagai, T. 2008. Novel deletion mutation in GFAP gene in an infantile form of Alexander disease. Pediatr. Neurol. 38: 50-52.

CHROMOSOMAL LOCATION

Genetic locus: 6330403K07Rik (mouse) mapping to 11 B4.

RESEARCH USE

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

PRODUCT

 $6330403K07Rik\ siRNA\ (m)$ 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 μM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see $6330403K07Rik\ shRNA$ Plasmid (m): sc-140433-SH and $6330403K07Rik\ shRNA\ (m)$ Lentiviral Particles: sc-140433-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

6330403K07Rik siRNA (m) is recommended for the inhibition of 6330403K07Rik 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 6330403K07Rik gene expression knockdown using RT-PCR Primer: 6330403K07Rik (m)-PR: sc-140433-PR (20 μ l). 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.