SANTA CRUZ BIOTECHNOLOGY, INC.

NGX6 siRNA (m): sc-140103

BACKGROUND

Nasopharyngeal carcinoma (NPC) is a common cancer in South China, but is not usually found in other parts of the world. NPC is characterized by orofacial pain and altered nerve sensation as well as a tendency to metastasize. The NPC associated gene 6 (NGX6) is located at a chromosomal location with a high frequency of loss of heterozygosity (LOH). The NGX6 protein contains an epidermal growth factor-like domain and a cytoplasmic region, both of which play a role in modulating cell adhesion. The cytoplasmic domain also functions to regulate growth, proliferation and migration through its association with Ezrin and the ability of the NGX6 protein to downregulate Ezrin expression. NGX6 also inhibits transcriptional activation of β-catenin/TCF/LEF in the Wnt signaling pathway by negatively regulating the nuclear translocation of β-catenin.

REFERENCES

1. Li, J., et al. 2001. Proteomic detection of changes in protein synthesis induced by NGX6 transfected in human nasopharyngeal carcinoma cells. J. Protein Chem. 20: 265-271.
2. Xiong, W., et al. 2002. Single-nucleotide polymorphisms in NGX6 gene and their correlation with nasopharyngeal carcinoma. Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao 34: 512-515.
3. Ma, J., et al. 2005. Role of a novel EGF-like domain-containing gene NGX6 in cell adhesion modulation in nasopharyngeal carcinoma cells. Carcinogenesis 26: 281-291.
4. Wang, L., et al. 2005. NGX6 gene inhibits cell proliferation and plays a negative role in EGFR pathway in nasopharyngeal carcinoma cells. J. Cell. Biochem. 95: 64-73.
5. Peng, S.P., et al. 2006. The role of NGX6 and its deletion mutants in the proliferation, adhesion and migration of nasopharyngeal carcinoma 5-8F cells. Oncology 71: 273-281.
6. Peng, S., et al. 2007. The expression of ezrin in NPC and its interaction with NGX6, a novel candidate suppressor. Cancer Sci. 98: 341-349.
7. Xiao, Z.M., et al. 2007. Intraspleenic tumor modle of nude mice in the anti-metastasis roles of NGX6 gene against colon cancer. Zhong Nan Da Xue Xue Bao Yi Xue Ban 32: 753-757.
8. Liu, F., et al. 2007. Effects of NGX6 on the transcriptional activation of β-catenin/TCF/LEF in Wnt/β-catenin signal pathway. Zhong Nan Da Xue Xue Bao Yi Xue Ban. 32: 985-991.

CHROMOSOMAL LOCATION

Genetic locus: Tmem8b (mouse) mapping to 4 B1.

PRODUCT

NGX6 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 NGX6 shRNA Plasmid (m): sc-140103-SH and NGX6 shRNA (m) Lentiviral Particles: sc-140103-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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

NGX6 siRNA (m) is recommended for the inhibition of NGX6 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 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 NGX6 gene expression knockdown using RT-PCR Primer: NGX6 (m)-PR: sc-140103-PR (20 µl). 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.

PROTOCOLS

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