SANTA CRUZ BIOTECHNOLOGY, INC.

gasdermin C siRNA (h): sc-77600

BACKGROUND

Gasdermin C (GSDMC), also known as melanoma-derived leucine zipper-containing extranuclear factor (MLZE), is a 508 amino acid member of the gasdermin protein family. Localized to the cytoplasm, gasdermin C is expressed primarily in spleen and trachea. Gasdermin C expression has been found to increase with the metastatic potential of melanoma cells. The gene that encodes gasdermin C maps to human chromosom 8, which encodes about 800 genes. Translocation of portions of chromosome 8 with amplifications of the c-Myc gene are found in some leukemias and lymphomas, and typically associated with a poor prognosis. Portions of chromosome 8 have been linked to schizophrenia and bipolar disorder. Chromosome 8 is also associated with Pfeiffer syndrome, congenital hypothyroidism and Waardenburg syndrome.

REFERENCES

1. Watabe, K., et al. 2001. Structure, expression and chromosome mapping of MLZE, a novel gene which is preferentially expressed in metastatic melanoma cells. Jpn. J. Cancer Res. 92: 140-151.
2. Tamura, M., et al. 2007. Members of a novel gene family, Gsdm, are expressed exclusively in the epithelium of the skin and gastrointestinal tract in a highly tissue-specific manner. Genomics 89: 618-629.
3. Saeki, N., et al. 2007. GASDERMIN, suppressed frequently in gastric cancer, is a target of LMO1 in TGF-β-dependent apoptotic signalling. Oncogene 26: 6488-6498.
4. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 608384. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Saeki, N., et al. 2009. Distinctive expression and function of four GSDM family genes (GSDMA-D) in normal and malignant upper gastrointestinal epithelium. Genes Chromosomes Cancer 48: 261-271.
6. Birnbaum, S., et al. 2009. Key susceptibility locus for nonsyndromic cleft lip with or without cleft palate on chromosome 8q24. Nat. Genet. 41: 473-477.

CHROMOSOMAL LOCATION

Genetic locus: GSDMC (human) mapping to 8q24.21.

PRODUCT

gasdermin C 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see gasdermin C shRNA Plasmid (h): sc-77600-SH and gasdermin C shRNA (h) Lentiviral Particles: sc-77600-V as alternate gene silencing products.

For independent verification of gasdermin C (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-77600A, sc-77600B and sc-77600C.

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 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

gasdermin C siRNA (h) is recommended for the inhibition of gasdermin C 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 gasdermin C gene expression knockdown using RT-PCR Primer: gasdermin C (h)-PR: sc-77600-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.