



gasdermin C siRNA (m): sc-149473

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 chromosome 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 (mouse) mapping to 15 D1.

PRODUCT

gasdermin C 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see gasdermin C shRNA Plasmid (m): sc-149473-SH and gasdermin C shRNA (m) Lentiviral Particles: sc-149473-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

gasdermin C siRNA (m) is recommended for the inhibition of gasdermin C 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 gasdermin C gene expression knockdown using RT-PCR Primer: gasdermin C (m)-PR: sc-149473-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.