



MAGE-L2 siRNA (h): sc-90089

BACKGROUND

The melanoma-associated antigen (MAGE) family consists of a number of antigens recognized by cytotoxic T lymphocytes. The MAGE genes were initially isolated from different kinds of tumors and, based on their virtually exclusive tumor-specific expression in adult tissues, they have been used as targets for cancer immunotherapy. MAGE genes encode for tumor-rejection antigens that are expressed in tumors of different histologic types and in normal testis and placenta. MAGE-L2 (MAGE-like protein 2), also known as nM15 or NDNL1 (necdin-like 1), is a 529 amino acid protein that contains one MAGE domain. Expressed in brain and placenta, MAGE-L2 is encoded by a gene that maps to human chromosome 15q11.2. Defects in the MAGE-L2 gene are linked to the development of Prader-Willi syndrome (PWS).

REFERENCES

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2. Boccaccio, I., et al. 1999. The human MAGEL2 gene and its mouse homologue are paternally expressed and mapped to the Prader-Willi region. *Hum. Mol. Genet.* 8: 2497-2505.
3. Lee, S., et al. 2000. Expression and imprinting of MAGEL2 suggest a role in Prader-willli syndrome and the homologous murine imprinting phenotype. *Hum. Mol. Genet.* 9: 1813-1819.
4. Lee, S., et al. 2005. Essential role for the Prader-Willi syndrome protein necdin in axonal outgrowth. *Hum. Mol. Genet.* 14: 627-637.
5. Kozlov, S.V., et al. 2007. The imprinted gene Magel2 regulates normal circadian output. *Nat. Genet.* 39: 1266-1272.
6. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 605283. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Fukuo, Y., et al. 2010. Lack of association between MAGEL2 and schizophrenia and mood disorders in the Japanese population. *Neuromolecular Med.* 12: 285-291.

CHROMOSOMAL LOCATION

Genetic locus: MAGEL2 (human) mapping to 15q11.2.

PRODUCT

MAGE-L2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see MAGE-L2 shRNA Plasmid (h): sc-90089-SH and MAGE-L2 shRNA (h) Lentiviral Particles: sc-90089-V as alternate gene silencing products.

For independent verification of MAGE-L2 (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-90089A, sc-90089B and sc-90089C.

RESEARCH USE

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

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

MAGE-L2 siRNA (h) is recommended for the inhibition of MAGE-L2 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 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 MAGE-L2 gene expression knockdown using RT-PCR Primer: MAGE-L2 (h)-PR: sc-90089-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.