



MUDENG siRNA (m): sc-140253

BACKGROUND

MUDENG (MU-2/AP1M2 domain containing, death-inducing), also known as MuD (MU-2-related death-inducing protein) or putative HIV-1 infection-related protein, is a 490 amino acid protein belonging to the adaptor complexes (APs) medium subunit family. MUDENG contains an adaptin domain found in the MU-2 subunit of APs related to clathrin-mediated endocytosis, and may independently induce cell death. Encoded by a gene that maps to human chromosome 14q23.1, MUDENG is expressed in most tissues, including intestine and testis, and appears to be evolutionary conserved from mammals to amphibians, implying a universal role in cell death. MUDENG exists as two alternative spliced isoforms and is expressed in various tumor cell lines, including Jurkat T-cells, Hep G2 cells and HeLa cells.

REFERENCES

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3. Lee, M.R., et al. 2008. A novel protein, MUDENG, induces cell death in cytotoxic T cells. *Biochem. Biophys. Res. Commun.* 370: 504-508.
4. Semerdjieva, S., et al. 2008. Coordinated regulation of AP2 uncoating from clathrin-coated vesicles by rab5 and hRME-6. *J. Cell Biol.* 183: 499-511.
5. San Martin, C.D., et al. 2008. Caco-2 intestinal epithelial cells absorb soybean ferritin by MU-2 (AP2)-dependent endocytosis. *J. Nutr.* 138: 659-666.
6. Kelly, B.T., et al. 2008. A structural explanation for the binding of endocytic dileucine motifs by the AP2 complex. *Nature* 456: 976-979.
7. Lee, J.S., et al. 2009. Determination of EGFR endocytosis kinetic by autoregulatory association of PLD1 with MU-2. *PLoS ONE* 4: e7090.
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CHROMOSOMAL LOCATION

Genetic locus: Ap5m1 (mouse) mapping to 14 C1.

PRODUCT

MUDENG siRNA (m) 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 MUDENG shRNA Plasmid (m): sc-140253-SH and MUDENG shRNA (m) Lentiviral Particles: sc-140253-V as alternate gene silencing products.

For independent verification of MUDENG (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-140253A, sc-140253B and sc-140253C.

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

MUDENG siRNA (m) is recommended for the inhibition of MUDENG 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 MUDENG gene expression knockdown using RT-PCR Primer: MUDENG (m)-PR: sc-140253-PR (20 μl). Annealing temperature for the primers should be $55-60^\circ\text{C}$ and the extension temperature should be $68-72^\circ\text{C}$.

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.