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DNPEP siRNA (m): sc-143127

BACKGROUND

DNPEP, also known as DAP, ASPEP or aspartyl aminopeptidase, is a 475 amino acid protein that is a member of the M18 family of the MH clan of co-catalytic metalloproteases. It contains three zinc finger binding domains and several conserved residues including three histidines, three glutamates and five aspartates. DNPEP is ubiquitously expressed with highest expression in testis, intermediate expression in kidney and lung, and lesser but significant expression in spleen, liver and brain. DNPEP removes glutamyl or aspartyl residues from N-terminal acidic amino acid-containing peptides, implicating its importance in intracellular protein and peptide metabolism. In the brain, DNPEP converts Angiotensin I to Angiotensin II and is thought to play an important role in blood pressure control. This suggests that DNPEP may function as a potential target for antihypertensive therapy.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Dnpep (mouse) mapping to 1 C3.

PROTOCOLS

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

PRODUCT

DNPEP 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 DNPEP shRNA Plasmid (m): sc-143127-SH and DNPEP shRNA (m) Lentiviral Particles: sc-143127-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 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

DNPEP siRNA (m) is recommended for the inhibition of DNPEP 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 DNPEP gene expression knockdown using RT-PCR Primer: DNPEP (m)-PR: sc-143127-PR (20 μ l). 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.