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Ear11 siRNA (m): sc-143268

BACKGROUND

Ribonucleases are ubiquitous enzymes involved in RNA metabolism and are classified in several families on the basis of their structural, catalytic and biological properties. Ear11 (eosinophil-associated, ribonuclease A family, member 11) is a 155 amino acid protein that belongs to the pancreatic ribonuclease family. The gene encoding Ear11 maps to mouse chromosome 14 C1. The human homolog to Ear11, RNase 2 (ribonuclease, RNase A family, 2 (liver, eosinophil-derived neurotoxin)), is a 161 amino acid protein belonging to the pancreatic ribonuclease family. Localizing to the lysosome and cytoplasmic granule, RNase 2 is expressed in the liver, lung, spleen, leukocytes and body fluids. The N-terminal region of RNase 2 is necessary for mediating chemotactic activity for dendritic cells.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Ear11 (mouse) mapping to 14 C1.

PROTOCOLS

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

PRODUCT

Ear11 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 Ear11 shRNA Plasmid (m): sc-143268-SH and Ear11 shRNA (m) Lentiviral Particles: sc-143268-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

Ear11 siRNA (m) is recommended for the inhibition of Ear11 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 Ear11 gene expression knockdown using RT-PCR Primer: Ear11 (m)-PR: sc-143268-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.