

PE-1 siRNA (m): sc-106394

BACKGROUND

PE-1 (PU-Ets related-1), also known as ETV3 (ETS translocation variant 3) or METS (mitogenic Ets transcriptional suppressor), belongs to the ETS family of transcription factors and functions as a transcriptional repressor. ETS family members share a highly conserved DNA binding domain and play a role in growth factor pathways regulating proliferation and differentiation. PE-1 is ubiquitously expressed and localizes to the nucleus. Its expression can be induced by IL-10 via the STAT3 pathway suggesting that PE-1 contributes to the IL-10 downstream anti-inflammatory effects. During terminal cell differentiation, PE-1 plays a role in growth arrest by specifically repressing the target genes that are involved in Ras-dependent proliferation. The contributions of PE-1 to these anti-proliferative effects are heavily dependent on its interaction with Gemin3. Two PE-1 isoforms exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Etv3 (mouse) mapping to 3 F1.

PROTOCOLS

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

PRODUCT

PE-1 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PE-1 shRNA Plasmid (m): sc-106394-SH and PE-1 shRNA (m) Lentiviral Particles: sc-106394-V as alternate gene silencing products.

For independent verification of PE-1 (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-106394A, sc-106394B and sc-106394C.

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

PE-1 siRNA (m) is recommended for the inhibition of PE-1 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 PE-1 gene expression knockdown using RT-PCR Primer: PE-1 (m)-PR: sc-106394-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.