SANTA CRUZ BIOTECHNOLOGY, INC.

ENO4 siRNA (h): sc-90479

BACKGROUND

Enolases have been characterized as highly conserved cytoplasmic glycolytic enzymes that may be involved in differentiation. Three isoenzymes have been identified, α Enolase, β Enolase and γ Enolase. α Enolase expression has been detected on most tissues, whereas β Enolase is expressed predominantly in muscle tissue and γ Enolase is detected only in nervous tissue. These isoforms exist as both homodimers and heterodimers, and they play a role in converting phosphoglyceric acid to phosphenolpyruvic acid in the glycolytic pathway. ENO4 (Enolase-like protein ENO4), also known as C10orf134, is a 628 amino acid protein that belongs to the Enolase family. ENO4 is expressed as two isoforms produced by alternative splicing and is encoded by a gene mapping to human chromosome 10q25.3 and murine chromosome 19 D3.

REFERENCES

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6. Zhang, E., Brewer, J.M., Minor, W., Carreira, L.A. and Lebioda, L. 1997. Mechanism of Enolase: the crystal structure of asymmetric dimer Enolase-2-phospho-D glycerate/Enolase-phosphenolpyruvate at 2.0 A resolution. Biochemistry 36: 12526-12534.
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CHROMOSOMAL LOCATION

Genetic locus: ENO4 (human) mapping to 10q25.3.

PROTOCOLS

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

PRODUCT

ENO4 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ENO4 shRNA Plasmid (h): sc-90479-SH and ENO4 shRNA (h) Lentiviral Particles: sc-90479-V as alternate gene silencing products.

For independent verification of ENO4 (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-90479A, sc-90479B and sc-90479C.

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

ENO4 siRNA (h) is recommended for the inhibition of ENO4 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 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 ENO4 gene expression knockdown using RT-PCR Primer: ENO4 (h)-PR: sc-90479-PR (20 µl). 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.