SANTA CRUZ BIOTECHNOLOGY, INC.

PPPDE1 siRNA (h): sc-88491

BACKGROUND

PPPDE1 (PPPDE peptidase domain containing 1), also known as FAM152A (family with sequence similarity 152, member A), is a 194 amino acid protein that contains one PPPDE peptidase domain and belongs to the UPF0326 family. Highly conserved, human PPPDE1 shares 96% identity with its mouse orthologue and likely plays a role in the apoptotic response to DNA damage. Existing as two alternatively spliced isoforms, PPPDE1 localizes to Golgi complex and is ubiquitously expressed, with highest expression levels in skeletal muscle, lymph and liver. Down-regulation of PPPDE1 during early embryogenesis potentially results in an increase of muscle fiber numbers. PPPDE1 is also linked to fat traits, and is a potential genetic marker for molecular-assisted selection in animal breeding. Overexpression of PPPDE1 promotes apoptotic death in lung, colon and ovarian cancer cells, making PPPDE1 a candidate for multiple cancer therapies. The gene that encodes PPPDE1 maps to human chromosome 1q44.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DESI2 (human) mapping to 1q44.

PROTOCOLS

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

PRODUCT

PPPDE1 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 PPPDE1 shRNA Plasmid (h): sc-88491-SH and PPPDE1 shRNA (h) Lentiviral Particles: sc-88491-V as alternate gene silencing products.

For independent verification of PPPDE1 (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-88491A, sc-88491B and sc-88491C.

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

PPPDE1 siRNA (h) is recommended for the inhibition of PPPDE1 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 PPPDE1 gene expression knockdown using RT-PCR Primer: PPPDE1 (h)-PR: sc-88491-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.