SANTA CRUZ BIOTECHNOLOGY, INC.

GDE4 siRNA (m): sc-145376

BACKGROUND

GDE4 (glycerophosphodiester phosphodiesterase 4), also known as GDPD1 (glycerophosphodiester phosphodiesterase domain-containing protein 1), is a 314 amino acid cytoplasmic and multi-pass membrane protein that belongs to the glycerophosphoryl diester phosphodiesterase family. Expressed in small intestine, placenta, kidney, ovary, thymus, pancreas, spleen, liver and peripheral blood leukocytes, GDE4 contains one GDPD domain and exists as three alternatively spliced isoforms. GDE4 is encoded by a gene that maps to human chromosome 17q22, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Gdpd1 (mouse) mapping to 11 C.

PROTOCOLS

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

PRODUCT

GDE4 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see GDE4 shRNA Plasmid (m): sc-145376-SH and GDE4 shRNA (m) Lentiviral Particles: sc-145376-V as alternate gene silencing products.

For independent verification of GDE4 (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-145376A, sc-145376B and sc-145376C.

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

GDE4 siRNA (m) is recommended for the inhibition of GDE4 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 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 GDE4 gene expression knockdown using RT-PCR Primer: GDE4 (m)-PR: sc-145376-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.