SANTA CRUZ BIOTECHNOLOGY, INC.

HISPPD2A siRNA (h): sc-90149

BACKGROUND

HISPPD2A (histidine acid phosphatase domain-containing protein 2A), also known as PPIP5K1 (diphosphoinositol pentakisphosphate kinase 1), IP6K, KIAA0377 or VIP1, is a 1,433 amino acid protein that belongs to the histidine acid phosphatase family and VIP1 subfamily. Localizing to the cytoplasm, HISPPD2A is widely expressed, with highest levels of expression in skeletal muscle, heart and brain. HISPPD2A catalyzes the formation of diphosphoinositol pentakisphosphate (InsP7) and bi-diphosphoinositol tetrakisphosphate (InsP8) by converting inositolitol hexakisphosphate (InsP6) into InsP7, and InsP7 into InsP8. Existing as seven alternatively spliced isoforms, HISPPD2A may have an important role for intracellular signaling pathways. The gene encoding HISPPD2A maps to human chromosome 15, which additionally contains a HISPPD2A pseudogene.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PPIP5K1 (human) mapping to 15q15.3.

PROTOCOLS

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

PRODUCT

HISPPD2A 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 HISPPD2A shRNA Plasmid (h): sc-90149-SH and HISPPD2A shRNA (h) Lentiviral Particles: sc-90149-V as alternate gene silencing products.

For independent verification of HISPPD2A (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-90149A, sc-90149B and sc-90149C.

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

HISPPD2A siRNA (h) is recommended for the inhibition of HISPPD2A 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 HISPPD2A gene expression knockdown using RT-PCR Primer: HISPPD2A (h)-PR: sc-90149-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.