SANTA CRUZ BIOTECHNOLOGY, INC.

HIP3 siRNA (m): sc-75260

BACKGROUND

HIP3 (huntingtin-interacting protein 3), also known as ZDHHC17 (zinc finger, DHHC-type containing 17), HYPH, HIP14 or HSPC294, is a 632 amino acid multi-pass membrane protein that localizes to both the golgi apparatus to cytoplasmic vesicles and contains one DHHC-type zinc finger and five ANK repeats. Expressed predominately in brain tissue, but also present in kidney, pancreas, testis and heart, HIP3 functions as a palmitoyltransferase that is involved in the sorting and targeting of proteins that are involved in endocytotic events. HIP3 exists as multiple alternatively spliced isoforms and is associated with the pathogenesis of Huntington's Disease (HD), a genetic neurological disorder that is characterized by uncoordinated, jerky body movements and a decline in some mental abilities.

REFERENCES

1. Faber, P.W., et al. 1998. Huntingtin interacts with a family of WW domain proteins. Hum. Mol. Genet. 7: 1463-1474.
2. Singaraja, R.R., et al. 2002. HIP14, a novel ankyrin domain-containing protein, links huntingtin to intracellular trafficking and endocytosis. Hum. Mol. Genet. 11: 2815-2828.
3. Huang, K., et al. 2004. Huntingtin-interacting protein HIP14 is a palmitoyl transferase involved in palmitoylation and trafficking of multiple neuronal proteins. Neuron 44: 977-986.
4. Ducker, C.E., et al. 2004. Huntingtin interacting protein 14 is an oncogenic human protein: palmitoyl acyltransferase. Oncogene 23: 9230-9237.
5. Metzger, S., et al. 2006. Genetic analysis of candidate genes modifying the age-at-onset in Huntington's disease. Hum. Genet. 120: 285-292.
6. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 607799. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
7. Ohyama, T., et al. 2007. Huntingtin-interacting protein 14, a palmitoyl transferase required for exocytosis and targeting of CSP to synaptic vesicles. J. Cell Biol. 179: 1481-1496.

CHROMOSOMAL LOCATION

Genetic locus: Zdhhc17 (mouse) mapping to 10 D1.

PRODUCT

HIP3 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 HIP3 shRNA Plasmid (m): sc-75260-SH and HIP3 shRNA (m) Lentiviral Particles: sc-75260-V as alternate gene silencing products.

For independent verification of HIP3 (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-75260A, sc-75260B and sc-75260C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

HIP3 siRNA (m) is recommended for the inhibition of HIP3 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 HIP3 gene expression knockdown using RT-PCR Primer: HIP3 (m)-PR: sc-75260-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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