SANTA CRUZ BIOTECHNOLOGY, INC.

DIP2C siRNA (h): sc-62216

BACKGROUND

DIP2C (disco-interacting protein 2 homolog C) is a 1,556 amino acid protein. It is one of 3 human homologs of the *Drosophila* dip2 (disconnected-interacting protein 2) protein. In *Drosophila,* dip2 interacts with disco, a protein required for neuronal connections in the visual systems of larvae and adults. The closest vertebrate homologs to disco are the basonuclin genes. In mice, DIP2 homologs show restricted expression to the brain. This suggests that, similar to the function of *Drosophila* dip2, vertebrate DIP2 homologs (DIP2A, DIP2B and DIP2C) may play a role in the development of the nervous system.

REFERENCES

1. Mukhopadhyay, M., et al. 2002. Cloning, genomic organization and expression pattern of a novel *Drosophila* gene, the disco-interacting protein 2 (dip2), and its murine homolog. Gene 293: 59-65.
2. DeSousa, D., et al. 2003. A novel double-stranded RNA-binding protein, disco interacting protein 1 (DIP1), contributes to cell fate decisions during *Drosophila* development. J. Biol. Chem. 278: 38040-38050.
3. Bondos, S.E., et al. 2004. Hox transcription factor ultrabithorax Ib physically and genetically interacts with disconnected interacting protein 1, a double-stranded RNA-binding protein. J. Biol. Chem. 279: 26433-26444.
4. Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. Science 314: 268-274.

CHROMOSOMAL LOCATION

Genetic locus: DIP2C (human) mapping to 10p15.3.

PRODUCT

DIP2C 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 DIP2C shRNA Plasmid (h): sc-62216-SH and DIP2C shRNA (h) Lentiviral Particles: sc-62216-V as alternate gene silencing products.

For independent verification of DIP2C (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-62216A, sc-62216B and sc-62216C.

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.

PROTOCOLS

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

APPLICATIONS

DIP2C siRNA (h) is recommended for the inhibition of DIP2C 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 DIP2C gene expression knockdown using RT-PCR Primer: DIP2C (h)-PR: sc-62216-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.