

## NRBP2 siRNA (m): sc-150063

### BACKGROUND

The nuclear receptor binding proteins (NRBPs) are host cellular proteins that influence subcellular trafficking between the endoplasmic reticulum (ER) and the Golgi apparatus via interactions with GTPases. As multidomain putative adaptor proteins, NRBPs modulate multiple signaling pathways by regulating the formation of signaling complexes in the cytoplasm. NRBP2 (nuclear receptor binding protein 2), also known as TRG16 or pp9320, is a 258 amino acid member of the Ser/Thr protein kinase family. NRBP2 contains a single protein kinase domain that is predicted to be catalytically inactive. Existing as two alternatively spliced isoforms, NRBP2 is suggested to be involved in neural progenitor cell survival. The gene encoding NRBP2 is located on human chromosome 8, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies.

### REFERENCES

1. Hooper, J.D., Baker, E., Ogbourne, S.M., Sutherland, G.R. and Antalis, T.M. 2000. Cloning expressed, multidomain putative adapter protein. *Genomics* 66: 113-118.
2. De Langhe, S., Haataja, L., Senadheera, D., Groffen, J. and Heisterkamp, N. 2002. Interaction of the small GTPase Rac 3 with NRBP, a protein with a kinase-homology domain. *Int. J. Mol. Med.* 9: 451-459.
3. Chua, J.J., Ng, M.M. and Chow, V.T. 2004. The non-structural 3 (NS3) protein of dengue virus type 2 interacts with human nuclear receptor binding protein and is associated with alterations in membrane structure. *Virus Res.* 102: 151-163.
4. Wang, H., Sun, X., Luo, Y., Lin, Z. and Wu, J. 2006. Adapter protein NRBP associates with Jab1 and negatively regulates AP-1 activity. *FEBS Lett.* 580: 6015-6021.
5. Larsson, J., Forsberg, M., Brännvall, K., Zhang, X.Q., Enarsson, M., Hedborg, F. and Forsberg-Nilsson, K. 2008. Nuclear receptor binding protein 2 is induced during neural progenitor differentiation and affects cell survival. *Mol. Cell. Neurosci.* 39: 32-39.

### CHROMOSOMAL LOCATION

Genetic locus: Nrbp2 (mouse) mapping to 15 D3.

### PRODUCT

NRBP2 siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NRBP2 shRNA Plasmid (m): sc-150063-SH and NRBP2 shRNA (m) Lentiviral Particles: sc-150063-V as alternate gene silencing products.

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

### 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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

### APPLICATIONS

NRBP2 siRNA (m) is recommended for the inhibition of NRBP2 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  $\mu$ M in 66  $\mu$ l. 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 NRBP2 gene expression knockdown using RT-PCR Primer: NRBP2 (m)-PR: sc-150063-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.