



# NIBP siRNA (h): sc-77839

## BACKGROUND

NIBP (NIK- and IKBKB-binding protein), also known as TRAPPC9 (trafficking protein particle complex 9), IBP, T1 or TRS120, is a 1,148 amino acid protein that localizes to the cytoplasm and the Golgi apparatus, as well as to the endoplasmic reticulum (ER). Highly expressed in kidney and muscle and present at lower levels in heart, brain and placenta, NIBP exists as a component of the TRAPP (transport protein particle) complex and is thought to play a role in neuronal cell differentiation and ER to Golgi vesicular transport. Additionally, NIBP, which exists as multiple alternatively spliced isoforms, functions as an NF $\kappa$ B activator, specifically by promoting increased phosphorylation of IKK proteins. The gene encoding NIBP maps to 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. Nomura, F., et al. 2000. NF $\kappa$ B activation through IKK-i-dependent I-TRAF/TANK phosphorylation. *Genes Cells* 5: 191-202.
2. Nagase, T., et al. 2001. Prediction of the coding sequences of unidentified human genes. XXI. The complete sequences of 60 new cDNA clones from brain which code for large proteins. *DNA Res.* 8: 179-187.
3. Hu, W.H., et al. 2005. NIBP, a novel NIK and IKK $\beta$ -binding protein that enhances NF $\kappa$ B activation. *J. Biol. Chem.* 280: 29233-29241.
4. Häcker, H., et al. 2006. Regulation and function of IKK and IKK-related kinases. *Sci. STKE*: re13.
5. Kümmel, D., et al. 2008. Distinct isocomplexes of the TRAPP trafficking factor coexist inside human cells. *FEBS Lett.* 582: 3729-3733.
6. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 611966. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: TRAPPC9 (human) mapping to 8q24.3.

## PRODUCT

NIBP 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NIBP shRNA Plasmid (h): sc-77839-SH and NIBP shRNA (h) Lentiviral Particles: sc-77839-V as alternate gene silencing products.

For independent verification of NIBP (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-77839A, sc-77839B and sc-77839C.

## 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

NIBP siRNA (h) is recommended for the inhibition of NIBP 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  $\mu$ 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 NIBP gene expression knockdown using RT-PCR Primer: NIBP (h)-PR: sc-77839-PR (20  $\mu$ l). 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.