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# Ran BP-6 siRNA (m): sc-152697

## BACKGROUND

Ran BP-6 (Ran-binding protein 6) is a 1,105 amino acid member of the importin beta family and contains seven HEAT repeats. Localizing to cytoplasm and nucleus, Ran BP-6 may function in nuclear protein import as a nuclear transport receptor. The Ran BP-6 gene is conserved in chimpanzee, bovine, mouse and rat, and maps to human chromosome 9p24.1. Chromosome 9 consists of about 145 million bases encoding nearly 900 genes and is approximately 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, is associated with the chromosome 9 gene encoding Endoglin protein, ENG. Familial dysautonomia is also associated with chromosome 9 through the IKBKAP gene. Notably, chromosome 9 encompasses the largest interferon family gene cluster. Chromosome 9 is partnered with chromosome 22 in the translocation leading to the aberrant production of Bcr-Abl fusion protein often found in leukemias.

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## CHROMOSOMAL LOCATION

Genetic locus: Ranbp6 (mouse) mapping to 19 C1.

## PRODUCT

Ran BP-6 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Ran BP-6 shRNA Plasmid (m): sc-152697-SH and Ran BP-6 shRNA (m) Lentiviral Particles: sc-152697-V as alternate gene silencing products.

For independent verification of Ran BP-6 (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-152697A, sc-152697B and sc-152697C.

## 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

Ran BP-6 siRNA (m) is recommended for the inhibition of Ran BP-6 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 Ran BP-6 gene expression knockdown using RT-PCR Primer: Ran BP-6 (m)-PR: sc-152697-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.

## PROTOCOLS

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