

# RAD54L2 siRNA (m): sc-152677

## BACKGROUND

Adrenergic receptors (ARs) include four general types ( $\alpha 1$ ,  $\alpha 2$ ,  $\beta 1$  and  $\beta 2$ ) that are found in different target tissues and differ in their affinities and responses to various agonists and antagonists. The coupling of ARs to specific intracellular effectors is mediated through diverse heterotrimeric G proteins. ARs play a critical role in the development of prostate cancer, and transcriptional activity of AR is partly regulated by coregulatory proteins. RAD54L2 (RAD54-like 2), also known as ARIP4 (androgen receptor-interacting protein 4), HSPC325 or SRISNF2L, is a 1,467 amino acid nuclear protein belonging to the SNF2/RAD54 helicase family that consists of one helicase ATP-binding domain and a helicase C-terminal domain. RAD54L2 is a DNA helicase that regulates androgen receptor (AR)-dependent transactivation in a promoter-dependent manner. RAD54L2 is post-translationally sumoylated or phosphorylated upon DNA damage.

## REFERENCES

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2. Rouleau, N., et al. 2002. Novel ATPase of SNF2-like protein family interacts with androgen receptor and modulates androgen-dependent transcription. *Mol. Biol. Cell* 13: 2106-2119.
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8. Urbanucci, A., et al. 2008. Androgen regulation of the androgen receptor coregulators. *BMC Cancer* 8: 219.
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## CHROMOSOMAL LOCATION

Genetic locus: Rad54l2 (mouse) mapping to 9 F1.

## PROTOCOLS

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

## PRODUCT

RAD54L2 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 RAD54L2 shRNA Plasmid (m): sc-152677-SH and RAD54L2 shRNA (m) Lentiviral Particles: sc-152677-V as alternate gene silencing products.

For independent verification of RAD54L2 (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-152677A, sc-152677B and sc-152677C.

## 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

RAD54L2 siRNA (m) is recommended for the inhibition of RAD54L2 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 RAD54L2 gene expression knockdown using RT-PCR Primer: RAD54L2 (m)-PR: sc-152677-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.