

# TOX4 siRNA (h): sc-92350

## BACKGROUND

TOX high mobility group box family member 4 (TOX4), also known as epidermal Langerhans cell protein 1 (LCP1), is a 621 amino acid protein that localizes to the nucleus. Mapping to chromosome 14q11.2, TOX4 contains one high mobility group (HMG) box DNA-binding domain, corresponding to amino acids 223 to 291 of human TOX4. The HMG box domain is a region of about 80 amino acids with unusual DNA binding preferences. HMG proteins bind DNA without sequence specificity. Furthermore, they bind to distorted or modified DNA and have the property to bend DNA. The presence of the HMG box DNA-binding domain suggests that TOX4 plays a role in transcriptional regulation.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: TOX4 (human) mapping to 14q11.2.

## PROTOCOLS

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

## PRODUCT

TOX4 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 TOX4 shRNA Plasmid (h): sc-92350-SH and TOX4 shRNA (h) Lentiviral Particles: sc-92350-V as alternate gene silencing products.

For independent verification of TOX4 (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-92350A, sc-92350B and sc-92350C.

## 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

TOX4 siRNA (h) is recommended for the inhibition of TOX4 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 TOX4 gene expression knockdown using RT-PCR Primer: TOX4 (h)-PR: sc-92350-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.