

# Wig-1 siRNA (m): sc-155349

## BACKGROUND

p53 is a DNA-binding protein that is involved in a variety of processes, including tumor suppression and apoptosis, DNA replication and repair, and cell cycle regulation. Normal cells and tissues express a low level of p53 under most circumstances, but p53 expression is induced by DNA damage and cellular stress. Wig-1 (wild type p53-induced gene 1) is a zinc finger protein that contains a putative nuclear localization signal (NLS) and is induced by p53. Wig-1 expression is increased by whole body gamma irradiation in these tissues as well as in spleen and lung.

## REFERENCES

1. Trepel, M., Scheding, S., Groscurth, P., Horny, H.P., Malipiero, U., Brugger, W., Dichgans, J. and Weller, M. 1997. A new look at the role of p53 in leukemia cell sensitivity to chemotherapy. *Leukemia* 11: 1842-1849.
2. Kagawa, S., Fujiwara, T., Hizuta, A., Yasuda, T., Zhang, W.W., Roth, J.A. and Tanaka, N. 1997. p53 expression overcomes p21<sup>WAF1/CIP1</sup>-mediated G<sub>1</sub> arrest and induces apoptosis in human cancer cells. *Oncogene* 15: 1903-1909.
3. Varmeh-Zaie, S., Okan, I., Wang, Y., Magnusson, K.P., Warthoe, P., Strauss, M. and Wiman, K.G. 1997. Wig-1, a new p53-induced gene encoding a zinc finger protein. *Oncogene* 15: 2699-2704.
4. Evan, G. and Littlewood, T. 1998. A matter of life and cell death. *Science* 281: 1317-1322.
5. Kubbutat, M.H. and Vousden, K.H. 1998. Keeping an old friend under control: regulation of p53 stability. *Mol. Med. Today* 4: 250-256.

## CHROMOSOMAL LOCATION

Genetic locus: Zmat3 (mouse) mapping to 3 A3.

## PRODUCT

Wig-1 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 Wig-1 shRNA Plasmid (m): sc-155349-SH and Wig-1 shRNA (m) Lentiviral Particles: sc-155349-V as alternate gene silencing products.

For independent verification of Wig-1 (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-155349A, sc-155349B and sc-155349C.

## 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

Wig-1 siRNA (m) is recommended for the inhibition of Wig-1 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.

## GENE EXPRESSION MONITORING

Wig-1 (C-1): sc-398712 is recommended as a control antibody for monitoring of Wig-1 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Wig-1 gene expression knockdown using RT-PCR Primer: Wig-1 (m)-PR: sc-155349-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.