SANTA CRUZ BIOTECHNOLOGY, INC.

# 2610301G19Rik siRNA (m): sc-108805

## BACKGROUND

2610301G19Rik, also known as p30 DBC protein, MGC7730 or mKIAA1967, is a 922 amino acid murine protein that utilizes its N-terminus to inhibit the activity of both SIRT1 deacetylase and SUV39H1 (suppressor of variegation 3-9) methyltransferase. 2610301G19Rik is a homolog of human DBC-1 (deleted in breast cancer gene 1 protein), which is one of the genes located within the region of chromosome 8p21.3 that is homozygously deleted in some breast cancers. DBC-1 contains a nuclear localization signal, an N-terminal leucine zipper, an EF hand and a C-terminal coiled-coil region. DBC-1 is closely related to DIS but lacks the SAP domain. During death signaling mediated by TNF$\alpha$, endogenous DBC-1 undergoes caspase-dependent processing to generate DBC-1 p120 and p66, both of which include the C-terminus of the protein. Both DBC-1 p120 and p66 relocate to the cytoplasm.

## REFERENCES


1. Hamaguchi, M., et al. 2002. DBC2, a candidate for a tumor suppressor gene involved in breast cancer. Proc. Natl. Acad. Sci. USA 99: 13647-13652.
2. de Leeuw, R.J., et al. 2004. Comprehensive whole genome array CGH profiling of mantle cell lymphoma model genomes. Hum. Mol. Genet. 13: 1827-1837.
3. Rubio-Moscardo, F., et al. 2005. Characterization of 8p21.3 chromosomal deletions in B-cell lymphoma: TRAIL-R1 and TRAIL-R2 as candidate dosage-dependent tumor suppressor genes. Blood 106: 3214-3222.
4. Sundararajan, R., et al. 2005. Caspase-dependent processing activates the proapoptotic activity of deleted in breast cancer-1 during tumor necrosis factor-$\alpha$-mediated death signaling. Oncogene 24: 4908-4920.
5. Downey, C., et al. 2006. Pressure stimulates breast cancer cell adhesion independently of cell cycle and apoptosis regulatory protein (CARP)-1 regulation of focal adhesion kinase. Am. J. Surg. 192: 631-635.


## CHROMOSOMAL LOCATION

Genetic locus: 2610301G19Rik (mouse) mapping to 14 D2.

## PRODUCT

2610301G19Rik 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see 2610301G19Rik shRNA Plasmid (m): sc-108805-SH and 2610301G19Rik shRNA (m) Lentiviral Particles: sc-108805-V as alternate gene silencing products.

For independent verification of 2610301G19Rik (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-108805A, sc-108805B and sc-108805C.

## PROTOCOLS

See our web site at 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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

2610301G19Rik siRNA (m) is recommended for the inhibition of 2610301G19Rik 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 µM in 66 µl. 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

DBC-1 (H-2): sc-166733 is recommended as a control antibody for monitoring of 2610301G19Rik 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 2610301G19Rik gene expression knockdown using RT-PCR Primer: 2610301G19Rik (m)-PR: sc-108805-PR (20 µl). 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.