

SKIV2L2 siRNA (m): sc-153477

BACKGROUND

SKIV2L2 (superkiller viralicidic activity 2-like 2) is a 1,042 amino acid protein that belongs to the helicase family and the SKI2 subfamily. The SKIV2L2 protein localizes to nucleus, contains one helicase ATP-binding domain and one helicase C-terminal domain. SKIV2L2 is identified in the spliceosome C complex and may be involved in pre-mRNA splicing. SKIV2L2 is associated with the RNA exosome complex and involved in the 3' processing of the 7S pre-RNA to the mature 5.8S rRNA. The SKIV2L2 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish, fruit fly, mosquito, *C. elegans*, *S. pombe*, *S. cerevisiae*, *K. lactis*, *E. gossypii*, *M. grisea*, *N. crassa*, *A. thaliana* and rice, and maps to human chromosome 5q11.2. A mutation in *skiv2l2* in zebrafish causes defects in cell proliferation, suggesting that *skiv2l2* plays a role in regulating melanoblast proliferation during early stages of melanocyte regeneration.

REFERENCES

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- Yang, C.T., et al. 2007. Mutations in *gfpt1* and *skiv2l2* cause distinct stage-specific defects in larval melanocyte regeneration in zebrafish. *PLoS Genet.* 3: e88.
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CHROMOSOMAL LOCATION

Genetic locus: *Skiv2l2* (mouse) mapping to 13 D2.2.

PRODUCT

SKIV2L2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SKIV2L2 shRNA Plasmid (m): sc-153477-SH and SKIV2L2 shRNA (m) Lentiviral Particles: sc-153477-V as alternate gene silencing products.

For independent verification of SKIV2L2 (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-153477A, sc-153477B and sc-153477C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

SKIV2L2 siRNA (m) is recommended for the inhibition of SKIV2L2 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 μ M in 66 μ 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

SKIV2L2 (H-9): sc-515828 is recommended as a control antibody for monitoring of SKIV2L2 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 κ BP-HRP: sc-516102 or m-IgG κ 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 κ BP-FITC: sc-516140 or m-IgG κ 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 SKIV2L2 gene expression knockdown using RT-PCR Primer: SKIV2L2 (m)-PR: sc-153477-PR (20 μ 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 for detailed protocols and support products.