SANTA CRUZ BIOTECHNOLOGY, INC.

Su[fu] siRNA (m): sc-36573

BACKGROUND

Su[fu] (for suppressor-of-fused) is a key negative regulator in the vertebrate hedgehog signaling pathway. Su[fu] interacts with genes encoding proteins in this signal transduction pathway. In *Drosophila,* Intracellular transduction of the hedgehog pathway involves the release of a large complex containing Su[fu]. Su[fu] inhibits the activity of the transcription factor Gli1 and interacts with Gli2, Gli3 and the serine/threonine kinase fused. Su[fu] is widely expressed in adult and embryonic tissues with higher expression in tissues patterned by hegdehog signaling. The Su[fu] gene locus maps to a region that is deleted in glioblastomas, prostate cancer, malignant melanoma and endometrial cancer.

REFERENCES

1. Ruiz i Altaba, A. 1997. Catching a Gli-mpse of hedgehog. Cell 90: 193-196.
2. Monnier, V., et al. 1998. Suppressor of fused links fused and *Cubitus interruptus* on the hedgehog signalling pathway. Curr. Biol. 8: 583-586.
3. Pearse, R.V., 2nd., et al. 1999. Vertebrate homologs of *Drosophila* suppressor of fused interact with the Gli family of transcriptional regulators. Dev. Biol. 212: 323-336.
4. Methot, N., et al. 1999. Hedgehog controls limb development by regulating the activities of distinct transcriptional activator and repressor forms of *Cubitus interruptus.* Cell 96: 819-831.
5. Kogerman, P., et al. 1999. Mammalian suppressor-of-fused modulates nuclear-cytoplasmic shuttling of Gli-1. Nat. Cell Biol. 1: 312-319.
6. Stone, D.M., et al. 1999. Characterization of the human suppressor of fused, a negative regulator of the zinc-finger transcription factor Gli. J. Cell Sci. 112: 4437-4448.

CHROMOSOMAL LOCATION

Genetic locus: Sufu (mouse) mapping to 19 C3.

PRODUCT

Su[fu] 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 Su[fu] shRNA Plasmid (m): sc-36573-SH and Su[fu] shRNA (m) Lentiviral Particles: sc-36573-V as alternate gene silencing products.

For independent verification of Su[fu] (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-36573A, sc-36573B and sc-36573C.

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.

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

Su[fu] siRNA (m) is recommended for the inhibition of Su[fu] 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

Su[fu] (F-4): sc-137014 is recommended as a control antibody for monitoring of Su[fu] 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-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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 Su[fu] gene expression knockdown using RT-PCR Primer: Su[fu] (m)-PR: sc-36573-PR (20 µl, 398 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.