SANTA CRUZ BIOTECHNOLOGY, INC.

Skip siRNA (m): sc-37165

BACKGROUND

Ski is a unique oncoprotein that is involved in inducing both transformation and differentiation. Skip (Ski-interacting protein) is a nuclear hormone receptor that binds the highly conserved region of Ski, which is required for its transforming activity. Skip is involved in vitamin D-mediated transcription. Specifically, Skip interacts with E7, the major transforming protein of human papillomavirus, which is implicated in the development of cervical cancer. Skip has specific inhibitory effects on BMP-2-induced differentiation and is implicated to be a novel regulator of the differentiation programming induced by TGF-β signals. Skip also functions as a repressor in Notch signaling in association with the corepressor SMRT.

REFERENCES

1. Baudino, T.A., et al. 1998. Isolation and characterization of a novel co-activator protein, NCoA-62, involved in vitamin D-mediated transcription. J. Biol. Chem. 273: 16434-16441.
2. Dahl, R., et al. 1998. The Ski oncoprotein interacts with Skip, the human homolog of *Drosophila* Bx42. Oncogene 16: 1579-1586.
3. Leong, G.M., et al. 2001. Ski-interacting protein interacts with Smad proteins to augment transforming growth factor-β-dependent transcription. J. Biol. Chem. 276: 18243-18248.
4. Prathapam, T., et al. 2001. The HPV-16 E7 oncoprotein binds Skip and suppresses its transcriptional activity. Oncogene 20: 677-685.
5. Figueroa, J.D., et al. 2004. Differential effects of the Ski-interacting protein (Skip) on differentiation induced by transforming growth factor-β1 and bone morphogenetic protein-2 in C2C12 cells. Exp. Cell Res. 296: 163-172.
6. Leong, G.M., et al. 2004. Ski-interacting protein, a bifunctional nuclear receptor coregulator that interacts with N-CoR/SMRT and p300. Biochem. Biophys. Res. Commun. 315: 1070-1076.
7. Swiss-Prot/TrEMBL (Q13573). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html.

CHROMOSOMAL LOCATION

Genetic locus: Snw1 (mouse) mapping to 12 D2.

PRODUCT

Skip 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 Skip shRNA Plasmid (m): sc-37165-SH and Skip shRNA (m) Lentiviral Particles: sc-37165-V as alternate gene silencing products.

For independent verification of Skip (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-37165A, sc-37165B and sc-37165C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

Skip siRNA (m) is recommended for the inhibition of Skip 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

Skip (D-5): sc-393856 is recommended as a control antibody for monitoring of Skip 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 Skip gene expression knockdown using RT-PCR Primer: Skip (m)-PR: sc-37165-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.