

Ski (N-20): sc-9589

BACKGROUND

The Ski family of oncogenes includes Ski and Sno (Ski-related novel gene, or Ski-like). Three isoforms of human Sno (SnoN, SnoA and SnoI) and two isoforms in mouse (SnoN and SnoN2, also designated sno-dE3) are produced by alternative splicing of the SKIL gene. Ski family members are nuclear proteins that form homodimers and heterodimers, bind to DNA and function as transcriptional activators and repressors. These proteins consist of five tandem repeats in the C-terminal domain and two leucine zipper motifs that are responsible for efficient DNA binding, trimerization and cellular transformation. The Ski proteins regulate TGF β induced gene-specific transcriptional activation by effectively repressing Smad activity and, thereby, inhibit TGF β induced cell growth and extracellular matrix production. The amino-terminus of Ski and SnoN preferentially associates with the MH2 domain of Smad2 and Smad4 of the Smad family of transcription factors, where they then recruit the transcriptional corepressor protein N-CoR to the complex to inhibit transcription. Alternatively, Ski proteins are negatively regulated by various Smad proteins, as TGF β induces Smad3 accumulation in the nucleus, where it is then responsible for inducing the rapid degradation of SnoN and facilitating TGF β signaling pathways and Smad-activated gene transcription.

REFERENCES

1. Nomura, N., et al. 1989. Isolation of human cDNA clones of Ski and the Ski-related gene, Sno. *Nucleic Acids Res.* 17: 5489-5500.
2. Pearson-White, S. 1993. SnoI, a novel alternatively spliced isoform of the Ski proto-oncogene homolog, Sno. *Nucleic Acids Res.* 21: 4632-4638.

CHROMOSOMAL LOCATION

Genetic locus: SKI (human) mapping to 1p36.33; Ski (mouse) mapping to 4 E2.

SOURCE

Ski (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Ski of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-9589 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-9589 X, 200 μ g/0.1 ml.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

Ski (N-20) is recommended for detection of Ski of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Ski (N-20) is also recommended for detection of Ski in additional species, including equine, porcine and avian.

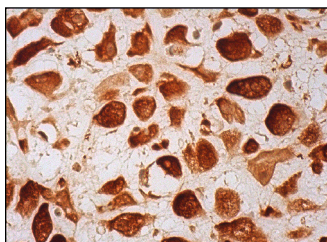
Suitable for use as control antibody for Ski siRNA (h): sc-38366, Ski siRNA (m): sc-38367, Ski shRNA Plasmid (h): sc-38366-SH, Ski shRNA Plasmid (m): sc-38367-SH, Ski shRNA (h) Lentiviral Particles: sc-38366-V and Ski shRNA (m) Lentiviral Particles: sc-38367-V.

Ski (N-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Ski: 95-115 kDa.

Positive Controls: Sol8 cell lysate: sc-2249.

DATA



Ski (N-20): sc-9589. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing nuclear and cytoplasmic staining of decidual cells.

SELECT PRODUCT CITATIONS

1. Kokura, K., et al. 2001. The Ski protein family is required for MeCP2-mediated transcriptional repression. *J. Biol. Chem.* 276: 34115-34121.
2. Villanacci, V., et al. 2008. Ski/SnoN expression in the sequence metaplasia-dysplasia-adenocarcinoma of Barrett's esophagus. *Hum. Pathol.* 39: 403-409.

RESEARCH USE

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



Try **Ski (G8): sc-33693** or **Ski (6D763): sc-73034**, our highly recommended monoclonal alternatives to Ski (N-20).