

SnoN (N-20): sc-9592

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. SnoL, a novel alternatively spliced isoform of the Ski protooncogene homolog, Sno. *Nucleic Acids Res.* 21: 4632-4638.
3. Nagase, T., et al. 1993. Complex formation between proteins encoded by the Ski gene family. *J. Biol. Chem.* 268: 13710-13716.
4. Heyman, H.C., et al. 1994. A carboxyl-terminal region of the Ski oncoprotein mediates homodimerization as well as heterodimerization with the related protein SnoN. *J. Biol. Chem.* 269: 26996-27003.
5. Mimura, N., et al. 1996. A transient increase of SnoN transcript by growth arrest upon serum deprivation and cell-to-cell contact. *FEBS Lett.* 397: 253-259.

CHROMOSOMAL LOCATION

Genetic locus: SKIL (human) mapping to 3q26.2; Skil (mouse) mapping to 3 A3.

SOURCE

SnoN (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SnoN 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-9592 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-9592 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SnoN (N-20) is recommended for detection of SnoN, SnoN2 and SnoA of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SnoN (N-20) is also recommended for detection of SnoN, SnoN2 and SnoA in additional species, including equine, bovine and porcine.

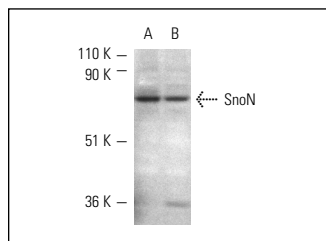
Suitable for use as control antibody for SnoA/N siRNA (h): sc-36518, SnoA/N siRNA (m): sc-36519, SnoA/N shRNA Plasmid (h): sc-36518-SH, SnoA/N shRNA Plasmid (m): sc-36519-SH, SnoA/N shRNA (h) Lentiviral Particles: sc-36518-V and SnoA/N shRNA (m) Lentiviral Particles: sc-36519-V.

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

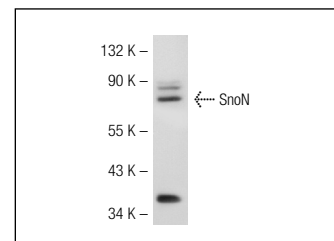
Molecular Weight of SnoN: 77 kDa.

Positive Controls: serum-starved NIH/3T3 whole cell lysate, SJRH30 cell lysate: sc-2287 or mouse brain extract: sc-2253.

DATA



SnoN (N-20): sc-9592. Western blot analysis of SnoN expression in serum-starved NIH/3T3 (A) and SJRH30 (B) whole cell lysates.



SnoN (N-20): sc-9592. Western blot analysis of SnoN expression in SK-N-MC whole cell lysate.

SELECT PRODUCT CITATIONS

1. Denissova, N.G. 2004. Repression of endogenous Smad7 by Ski. *J. Biol. Chem.* 279: 28143-28148.

STORAGE

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

RESEARCH USE

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



Try **SnoN (B-3): sc-136958** or **SnoN (C6): sc-133119**, our highly recommended monoclonal alternatives to SnoN (N-20).