

SnoN (H-317): sc-9141

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.

CHROMOSOMAL LOCATION

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

SOURCE

SnoN (H-317) is a rabbit polyclonal antibody raised against amino acids 368-684 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-9141 X, 200 μ g/0.1 ml.

APPLICATIONS

SnoN (H-317) is recommended for detection of SnoN and SnoN2 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 (H-317) is also recommended for detection of SnoN and SnoN2 in additional species, including equine, canine and bovine.

SnoN (H-317) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of SnoN: 77 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, SJRH30 cell lysate: sc-2287 or MCF7 whole cell lysate: sc-2206.

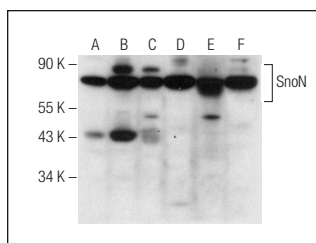
STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

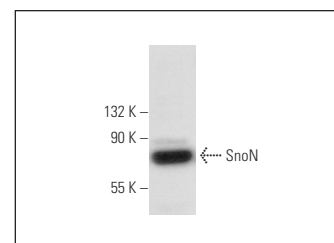
RESEARCH USE

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

DATA



SnoN (H-317): sc-9141. Western blot analysis of SnoN expression in Hep G2 (A), SJRH30 (B), MCF7 (C) and HT-1080 (D) whole cell lysates and human kidney (E) and mouse brain (F) tissue extracts.



SnoN (H-317): sc-9141. Western blot analysis of SnoN expression in JEG-3 whole cell lysate.

SELECT PRODUCT CITATIONS

- Stroschein, S.L., et al. 2001. Smad3 recruits the anaphase-promoting complex for ubiquitination and degradation of SnoN. *Genes Dev.* 21: 2822-2836.
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- Koinuma, D., et al. 2011. RB1CC1 protein positively regulates transforming growth factor- β signaling through the modulation of Arkadia E3 ubiquitin ligase activity. *J. Biol. Chem.* 286: 32502-32512.
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