Revision 1

SnoN Antibody

Store at -20C

#4973

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IF-IC	H	Endogenous	80	Rabbit	#P12757	6498

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunofluorescence (Immunocytochemistry)	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

SnoN Antibody detects endogenous levels of total SnoN protein.

Species predicted to react based on 100% sequence homology

Monkey

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser431 of human SnoN protein. Antibodies were purified by protein A and peptide affinity chromatography.

Background

Transforming growth factor-β (TGF-β) superfamily members are critical regulators of cell proliferation and differentiation, developmental patterning and morphogenesis and disease pathogenesis (1-3). Upon stimulation by TGF-β, activated receptors phosphorylate Smad2 and Smad3, resulting in their translocation to the nucleus, association with Smad4 and transcriptional regulation of target genes (4). Ski and SnoN are related oncoproteins originally discovered based on homology to v-Ski, the transforming protein of the Sloan-Kettering virus (5). They regulate TGF-β signaling by binding to Smad2 and Smad4 and repressing their ability to activate transcription (6). Following TGF-β stimulation, SnoN is rapidly degraded by the ubiquitin proteasome pathway providing negative feedback regulation (6-9). Overexpression of SnoN and Ski can transform avian fibroblasts and induce muscle differentiation (10). Mice heterozygous for SnoN and Ski display increased susceptibility to tumorigenesis (11,12). Interestingly, elevated expression of Ski and SnoN has been observed in many tumors and may serve as important prognostic markers (13,14). Taken together, these studies suggest possible dual functions of these proteins at different stages of tumorigenesis (15).

Background References

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3. Derynck, R. et al. (2001) *Nat. Genet.* 29, 117-129.
4. Miyazono, K. et al. (2000) *Adv. Immunol.* 75, 115-157.
5. Nomura, N. et al. (1989) *Nucleic Acids Res.* 17, 5489-5500.
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13. Zhang, F. et al. (2003) *Cancer Res.* 63, 5005-5010.
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15. Zhu, Q. et al. (2007) *Mol. Cell. Biol.* 27, 324-339.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

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