

# Fussel-18 (S-15): sc-242871

## BACKGROUND

The Sloan lettering virus (Ski) family of nuclear oncoproteins act as transcriptional regulators of TGF- $\beta$  by interacting directly with SMAD proteins. Fussel-18 (functional Smad-suppressing element on chromosome 18), also known as SKOR2 (Ski family transcriptional corepressor 2), LBX1 corepressor 1-like protein, ladybird homeobox corepressor 1-like protein or CORL2, is a 1,001 amino acid protein that belongs to the Ski family. Localizing to nucleus as well as cytoplasm, Fussel-18 is expressed in cerebellum, spinal cord and testis. Fussel-18 acts as an antagonist to TGF- $\beta$  in the nervous system, possibly by functioning as a transcriptional repressor of SMAD2 and SMAD3. Existing as two alternatively spliced isoforms, the gene encoding Fussel-18 maps to human chromosome 18q21.1 and mouse chromosome 18 E3.

## REFERENCES

- Arndt, S., et al. 2005. Cloning and functional characterization of a new Ski homolog, Fussel-18, specifically expressed in neuronal tissues. *Lab. Invest.* 85: 1330-1341.
- Nusbaum, C., et al. 2005. DNA sequence and analysis of human chromosome 18. *Nature* 437: 551-555.
- Arndt, S., et al. 2007. Fussel-15, a novel Ski/Sno homolog protein, antagonizes BMP signaling. *Mol. Cell. Neurosci.* 34: 603-611.
- Minaki, Y., et al. 2008. Identification of a novel transcriptional corepressor, Corl2, as a cerebellar Purkinje cell-selective marker. *Gene Expr. Patterns* 8: 418-423.
- Deheuninck, J. and Luo, K. 2009. Ski and SnoN, potent negative regulators of TGF- $\beta$  signaling. *Cell Res.* 19: 47-57.
- Jahchan, N.S. and Luo, K. 2010. SnoN in mammalian development, function and diseases. *Curr. Opin. Pharmacol.* 10: 670-675.
- Bennett, K.L., et al. 2010. HPV status-independent association of alcohol and tobacco exposure or prior radiation therapy with promoter methylation of FUSSEL18, EBF3, IRX1, and SEPT9, but not SLC5A8, in head and neck squamous cell carcinomas. *Genes Chromosomes Cancer* 49: 319-326.

## CHROMOSOMAL LOCATION

Genetic locus: SKOR2 (human) mapping to 18q21.1; Skor2 (mouse) mapping to 18 E3.

## SOURCE

Fussel-18 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Fussel-18 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-242871 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Fussel-18 (S-15) is recommended for detection of Fussel-18 of mouse, rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Fussel-18 siRNA (m): sc-145276, Fussel-18 shRNA Plasmid (m): sc-145276-SH and Fussel-18 shRNA (m) Lentiviral Particles: sc-145276-V.

Molecular Weight of Fussel-18: 104 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.