

# SEN15 (C-16): sc-163350

## BACKGROUND

SEN15, also known as TSEN15 (tRNA-splicing endonuclease subunit Sen15) or C1orf19, is a nuclear protein that plays a role in tRNA splicing. Widely expressed with highest expression in testis and uterus, SEN15 is a non-catalytic subunit of the multi-protein tRNA-splicing endonuclease complex. The endonuclease complex is responsible for identifying and cleaving pre-tRNA at both 5' and 3' splice sites, thereby releasing introns and free tRNA molecules with 2',3' cyclic phosphates and 5'-OH termini. In addition to its role in pre-tRNA splicing, the endonuclease complex participates in mRNA processing and, via its association with pre-mRNA processing factors, is thought to link pre-tRNA and pre-mRNA splicing events. As a subunit of the complex, SEN15 participates in protein expression and, ultimately, cell growth and division.

## REFERENCES

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2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608756. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Paushkin, S.V., Patel, M., Furia, B.S., Peltz, S.W. and Trotta, C.R. 2004. Identification of a human endonuclease complex reveals a link between tRNA splicing and pre-mRNA 3' end formation. *Cell* 117: 311-321.
4. Trotta, C.R., Paushkin, S.V., Patel, M., Li, H. and Peltz, S.W. 2006. Cleavage of pre-tRNAs by the splicing endonuclease requires a composite active site. *Nature* 441: 375-377.
5. Song, J. and Markley, J.L. 2007. Three-dimensional structure determined for a subunit of human tRNA splicing endonuclease (SEN15) reveals a novel dimeric fold. *J. Mol. Biol.* 366: 155-164.

## CHROMOSOMAL LOCATION

Genetic locus: TSEN15 (human) mapping to 1q25.3; Tsen15 (mouse) mapping to 1 G3.

## SOURCE

SEN15 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of SEN15 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-163350 P, (100 µg 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

SEN15 (C-16) is recommended for detection of SEN15 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); non cross-reactive with TSEN2, TSEN34 or TSEN54.

SEN15 (C-16) is also recommended for detection of SEN15 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SEN15 siRNA (h): sc-88364, SEN15 siRNA (m): sc-153335, SEN15 shRNA Plasmid (h): sc-88364-SH, SEN15 shRNA Plasmid (m): sc-153335-SH, SEN15 shRNA (h) Lentiviral Particles: sc-88364-V and SEN15 shRNA (m) Lentiviral Particles: sc-153335-V.

Molecular Weight of SEN15: 18 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206.

## 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.