

# INTS4 (E-15): sc-168193

## BACKGROUND

RNA polymerase II (Pol II) is an enzyme that is composed of twelve subunits and is responsible for the transcription of protein-coding genes. Transcription initiation requires Pol II-mediated recruitment of transcription machinery to a target promoter, thereby allowing transcription to begin. The integrator complex is a multi-protein complex that associates with the C-terminal domain of Pol II and is involved in small nuclear RNA (snRNA) transcription and 3'-end processing. INTS4 (integrator complex subunit 4) is a 963 amino acid protein that contains eight HEAT repeats and is a component of the integrator complex. Localized to the nucleus, INTS4 plays a role in the processing of select snRNAs and mediates snRNA transcriptional regulation events. Four isoforms of INTS4 are expressed due to alternative splicing events.

## REFERENCES

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2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611348. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Uguen, P. and Murphy, S. 2003. The 3' ends of human pre-snRNAs are produced by RNA polymerase II CTD-dependent RNA processing. *EMBO J.* 22: 4544-4554.
4. Jacobs, E.Y., Ogiwara, I. and Weiner, A.M. 2004. Role of the C-terminal domain of RNA polymerase II in U2 snRNA transcription and 3' processing. *Mol. Cell. Biol.* 24: 846-855.
5. Meinhart, A. and Cramer, P. 2004. Recognition of RNA polymerase II carboxy-terminal domain by 3'-RNA-processing factors. *Nature* 430: 223-226.
6. Baillat, D., Hakimi, M.A., Näär, A.M., Shilatifard, A., Cooch, N. and Shiekhattar, R. 2005. Integrator, a multiprotein mediator of small nuclear RNA processing, associates with the C-terminal repeat of RNA polymerase II. *Cell* 123: 265-276.
7. Egloff, S., O'Reilly, D. and Murphy, S. 2008. Expression of human snRNA genes from beginning to end. *Biochem. Soc. Trans.* 36: 590-594.

## CHROMOSOMAL LOCATION

Genetic locus: INTS4 (human) mapping to 11q14.1; Ints4 (mouse) mapping to 7 E1.

## SOURCE

INTS4 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of INTS4 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-168193 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

INTS4 (E-15) is recommended for detection of INTS4 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 other INTS family members.

INTS4 (E-15) is also recommended for detection of INTS4 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for INTS4 siRNA (h): sc-96598, INTS4 siRNA (m): sc-146254, INTS4 shRNA Plasmid (h): sc-96598-SH, INTS4 shRNA Plasmid (m): sc-146254-SH, INTS4 shRNA (h) Lentiviral Particles: sc-96598-V and INTS4 shRNA (m) Lentiviral Particles: sc-146254-V.

Molecular Weight of INTS4: 108 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.