# SANTA CRUZ BIOTECHNOLOGY, INC.

# INTS1 (N-14): sc-164683



The Power to Question

## BACKGROUND

RNA polymerase II (Pol II) is an enzyme that is composed of 12 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. INTS1 (integrator complex subunit 1), also known as NET28, is a 2,190 amino acid single-pass membrane protein that belongs to the integrator subunit 1 family and is a subunit of the Integrator complex. This complex associates with the C-terminal domain of RNA polymerase II large subunit and mediates 3-prime end processing of small nuclear RNAs U1 and U2.

## REFERENCES

- Uguen, P., et al. 2003. The 3' ends of human pre-snRNAs are produced by RNA polymerase II CTD-dependent RNA processing. EMBO J. 22: 4544-4554.
- Jacobs, E.Y., et al. 2004. Role of the C-terminal domain of RNA polymerase II in U2 snRNA transcription and 3' processing. Mol. Cell. Biol. 24: 846-855.
- Baillat, D., et al. 2005. Integrator, a multiprotein mediator of small nuclear RNA processing, associates with the C-terminal repeat of RNA polymerase II. Cell 123: 265-276.
- Egloff, S., et al. 2007. Serine-7 of the RNA polymerase II CTD is specifically required for snRNA gene expression. Science 318: 1777-1779.
- 5. Inagaki, Y., et al. 2008. CREB3L4, INTS3, and SNAPAP are targets for the 1q21 amplicon frequently detected in hepatocellular carcinoma. Cancer Genet. Cytogenet. 180: 30-36.
- 6. Richard, D.J., et al. 2008. Single-stranded DNA-binding protein hSSB1 is critical for genomic stability. Nature 453: 677-681.
- 7. Li, Y., et al. 2009. HSSB1 and hSSB2 form similar multiprotein complexes that participate in DNA damage response. J. Biol. Chem. 284: 23525-23531.
- 8. Skaar, J.R., et al. 2009. INTS3 controls the hSSB1-mediated DNA damage response. J. Cell Biol. 187: 25-32.
- Huang, J., et al. 2009. SOSS complexes participate in the maintenance of genomic stability. Mol. Cell 35: 384-393.

#### CHROMOSOMAL LOCATION

Genetic locus: INTS1 (human) mapping to 7p22.3; Ints1 (mouse) mapping to 5 G2.

#### SOURCE

INTS1 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of INTS1 of human origin.

# **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PRODUCT

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

Blocking peptide available for competition studies, sc-164683 P, (100  $\mu g$  peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **APPLICATIONS**

INTS1 (N-14) is recommended for detection of INTS1 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.

INTS1 (N-14) is also recommended for detection of INTS1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for INTS1 siRNA (h): sc-89497, INTS1 siRNA (m): sc-146249, INTS1 shRNA Plasmid (h): sc-89497-SH, INTS1 shRNA Plasmid (m): sc-146249-SH, INTS1 shRNA (h) Lentiviral Particles: sc-89497-V and INTS1 shRNA (m) Lentiviral Particles: sc-146249-V.

Molecular Weight of INTS1: 244 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) Immunofluo-rescence: 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.

## **RESEARCH USE**

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

# PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.