

# CPSF3L (K-14): sc-160249

## 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. This interaction is facilitated by phosphorylation of Serine-7 on Pol II. CPSF3L (cleavage and polyadenylation-specific factor 3-like protein), also known as Integrator complex subunit 11 (INTS11), is a 600 amino acid protein that is expressed as 3 isoforms.

## REFERENCES

1. 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.
2. 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.
3. 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.
4. Weiner, A.M. 2005. E Pluribus Unum: 3' end formation of polyadenylated mRNAs, histone mRNAs, and U snRNAs. *Mol. Cell* 20: 168-170.
5. Matera, A.G., Terns, R.M. and Terns, M.P. 2007. Non-coding RNAs: lessons from the small nuclear and small nucleolar RNAs. *Nat. Rev. Mol. Cell Biol.* 8: 209-220.
6. Egloff, S., O'Reilly, D., Chapman, R.D., Taylor, A., Tanzhaus, K., Pitts, L., Eick, D. and Murphy, S. 2007. Serine-7 of the RNA polymerase II CTD is specifically required for snRNA gene expression. *Science* 318: 1777-1779.
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: CPSF3L (human) mapping to 1p36.33; Cpsf3l (mouse) mapping to 4 E2.

## SOURCE

CPSF3L (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CPSF3L 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-160249 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CPSF3L (K-14) is recommended for detection of CPSF3L 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 CPSF3.

CPSF3L (K-14) is also recommended for detection of CPSF3L in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CPSF3L siRNA (h): sc-88083, CPSF3L siRNA (m): sc-142548, CPSF3L shRNA Plasmid (h): sc-88083-SH, CPSF3L shRNA Plasmid (m): sc-142548-SH, CPSF3L shRNA (h) Lentiviral Particles: sc-88083-V and CPSF3L shRNA (m) Lentiviral Particles: sc-142548-V.

Molecular Weight of CPSF3L: 68 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.

## 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.