

INTS2 (A-5): sc-514945

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. INTS2 (integrator complex subunit 2) is a 1,204 amino acid single-pass membrane protein and is a subunit of the Integrator complex, which associates with the C-terminal domain of the RNA polymerase II large subunit and mediates 3' end processing of small nuclear RNAs U1 and U2.

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., 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.
3. 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.
4. 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.

CHROMOSOMAL LOCATION

Genetic locus: INTS2 (human) mapping to 17q23.2; Ints2 (mouse) mapping to 11 C.

SOURCE

INTS2 (A-5) is a mouse monoclonal antibody raised against amino acids 47-109 mapping near the N-terminus of INTS2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

INTS2 (A-5) is available conjugated to agarose (sc-514945 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514945 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514945 PE), fluorescein (sc-514945 FITC), Alexa Fluor® 488 (sc-514945 AF488), Alexa Fluor® 546 (sc-514945 AF546), Alexa Fluor® 594 (sc-514945 AF594) or Alexa Fluor® 647 (sc-514945 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514945 AF680) or Alexa Fluor® 790 (sc-514945 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

INTS2 (A-5) is recommended for detection of INTS2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 INTS2 siRNA (h): sc-93707, INTS2 siRNA (m): sc-146252, INTS2 shRNA Plasmid (h): sc-93707-SH, INTS2 shRNA Plasmid (m): sc-146252-SH, INTS2 shRNA (h) Lentiviral Particles: sc-93707-V and INTS2 shRNA (m) Lentiviral Particles: sc-146252-V.

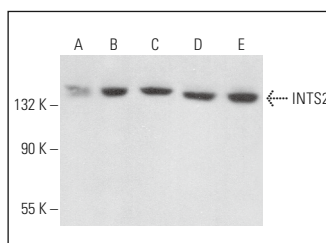
Molecular Weight of INTS2: 134 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, MCF7 whole cell lysate: sc-2206 or SK-N-MC cell lysate: sc-2237.

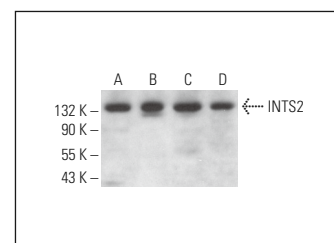
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



INTS2 (A-5): sc-514945. Western blot analysis of INTS2 expression in MCF7 (A), F9 (B), WEHI-231 (C), NAMALWA (D) and NTERA-2 cl.D1 (E) whole cell lysates.



INTS2 (A-5): sc-514945. Western blot analysis of INTS2 expression in RAW 264.7 (A), MCF7 (B), SK-N-MC (C) and Hs 181 Tes (D) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Zheng, H., et al. 2020. Identification of Integrator-PP2A complex (INTAC), an RNA polymerase II phosphatase. *Science* 370: eabb5872.

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.