

SNAPC 43 (H-22): sc-134017

BACKGROUND

TATA box-binding protein (TBP) interactions with TBP-associated factors (TAFs) are required for the transcription of RNA polymerases. One particular TBP-TAF complex, snRNA-activating protein complex (SNAPC), is unusual in that it regulates basal transcription of both RNA polymerase II and III by binding specifically to a non-TATA box proximal sequence element (PSE). SNAPC consists of five subunits of varying size. SNAPC binds to Oct-1 and TBP, which are activators of snRNA and RNA polymerases, respectively. The POU domain of Oct-1 binds to SNAPC 190 and effectively recruits SNAPC to the PSE. The cooperative binding of SNAPC and Oct-1 to their respective sequence elements is mediated by a nucleosome positioned between the two sequence elements. SNAPC 19 mediates the assembly of the subunits to form a functional SNAPC transcription regulator. SNAPC 50 (also designated PTFβ) contains two zinc finger motifs and binds to SNAPC 43 (also designated PTFγ) but not SNAPC 45 (PTFδ).

REFERENCES

- Sadowski, C.L., Henry, R.W., Lobo, S.M. and Hernandez, N. 1993. Targeting TBP to a non-TATA box *cis*-regulatory element: a TBP-containing complex activates transcription from snRNA promoters through the PSE. *Genes Dev.* 7: 1535-1548.
- Henry, R.W., Sadowski, C.L., Kobayashi, R. and Hernandez, N. 1995. A TBP-TAF complex required for transcription of human snRNA genes by RNA polymerase II and III. *Nature* 374: 653-666.
- Sadowski, C.L., Henry, R.W., Kobayashi, R. and Hernandez, N. 1996. The SNAP 45 subunit of the small nuclear RNA (snRNA) activating protein complex is required for RNA polymerase II and III snRNA gene transcription and interacts with the TATA box-binding protein. *Proc. Natl. Acad. Sci. USA* 93: 4289-4293.
- Henry, R.W., Ma, B., Sadowski, C.L., Kobayashi, R. and Hernandez, N. 1996. Cloning and characterization of SNAP 50, a subunit of the snRNA-activating protein complex SNAPC. *EMBO J.* 15: 7129-7136.
- Ford, E. and Hernandez, N. 1997. Characterization of a trimeric complex containing Oct-1, SNAPC, and DNA. *J. Biol. Chem.* 272: 16048-16055.

CHROMOSOMAL LOCATION

Genetic locus: SNAPC1 (human) mapping to 14q23.2.

SOURCE

SNAPC 43 (H-22) is a Protein A purified rabbit polyclonal antibody raised against synthetic SNAPC 43 peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

APPLICATIONS

SNAPC 43 (H-22) is recommended for detection of SNAPC 43 of human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

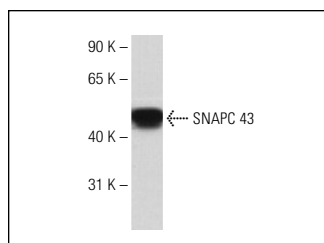
Suitable for use as control antibody for SNAPC 43 siRNA (h): sc-38401, SNAPC 43 shRNA Plasmid (h): sc-38401-SH and SNAPC 43 shRNA (h) Lentiviral Particles: sc-38401-V.

Molecular Weight of SNAPC 43: 43 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



SNAPC 43 (H-22): sc-134017. Western blot analysis of human SNAPC 43 transfected 293T whole cell lysate.

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.