

# SNAPC 43 (K-16): sc-20241

## 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 PTF $\beta$ ) contains two zinc finger motifs and binds to SNAPC 43 (also designated PTF $\gamma$ ) but not SNAPC 45 (PTF $\delta$ ).

## REFERENCES

1. Sadowski, C.L., et al. 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.
2. Henry, R.W., et al. 1995. A TBP-TAF complex required for transcription of human snRNA genes by RNA polymerase II and III. *Nature* 374: 653-666.
3. Sadowski, C.L., et al. 1996. The SNAP45 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.
4. Henry, R.W., et al. 1996. Cloning and characterization of SNAP50, a subunit of the snRNA-activating protein complex SNAPC. *EMBO J.* 15: 7129-7136.
5. 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 (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SNAPC 43 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, 20241 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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 (K-16) 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  $\mu$ g per 100-500  $\mu$ g 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).

SNAPC 43 (K-16) is also recommended for detection of SNAPC 43 in additional species, including equine and canine.

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.

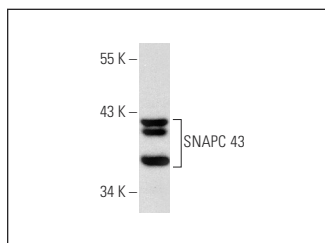
Molecular Weight of SNAPC 43: 43 kDa.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



SNAPC 43 (K-16): sc-20241. Western blot analysis of SNAPC 43 expression in HeLa whole cell lysate.

## RESEARCH USE

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

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Try **SNAPC 43 (3025C1a): sc-81571**, our highly recommended monoclonal alternative to SNAPC 43 (K-16).