TAF II p250 (N-12): sc-46649



The Power to Question

BACKGROUND

TFIID is a general transcription factor which initiates pre-initiation complex assembly through direct interaction with the TATA promoter element. It is a multi-subunit complex consisting of a small TATA-binding polypeptide and other TBP-associated factors (TAFs). Although native TFIID can mediate both activator-independent (basal) and activator-dependent transcription in reconstituted systems, TBP can mediate only basal transcription. The largest subunit (TAF) of TFIID is a protein designated TAF II p250. Of interest, TAF II p250 has been cloned and shown to be identical to CCG1, a nuclear DNA-binding protein known to be important for cell cycle progression. This part of TAF II p250 may serve a specific function in activation of a subset of genes important for cell cycle progression.

REFERENCES

- Matsui, T., et al. 1980. Multiple factors required for accurate initiation of transcription by purified RNA polymerase II. J. Biol. Chem. 255: 11992-11996.
- Sekiguchi, T., et al. 1988. Molecular cloning of the cDNA of human X chromosomal gene (CCG1) which complements the temperature-sensitive G₁ mutants, tsBN462 and ts13, of the BHK cell line. EMBO J. 7: 1683-1687.
- 3. Buratowski, S., et al. 1989. Five intermediate complexes in transcription initiation by RNA polymerase II. Cell 56: 549-561.
- Takada, R., et al. 1990. Identification of human TFIID components and direct interaction between a 250 kDa polypeptide and the TATA boxbinding protein (TFIIDt). Proc. Natl. Acad. Sci. USA 89: 11809-11813.
- Dynlacht, B.D., et al. 1991. Isolation of coactivators associated with the TATA-binding protein that mediate transcriptional activation. Cell 66: 563-576.
- Sekiguchi, T., et al. 1991. The human CCG1 gene, essential for progression of the G₁ phase, encodes a 210 kDa nuclear DNA-binding protein. Mol. Cell Biol. 11: 3317-3325.
- 7. Ruppert, S., et al. 1993. Cloning and expression of human TAFII250: a TBP-associated factor implicated in cell-cycle regulation. Nature 362: 175-179.
- 8. Hisatake, K., et al. 1993. The p250 subunit of native TATA box-binding factor TFIID is the cell-cycle regulatory protein CCG1. Nature 362: 179-181.

CHROMOSOMAL LOCATION

Genetic locus: TAF1 (human) mapping to Xq13.1; Taf1 (mouse) mapping to X D.

SOURCE

TAF II p250 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TFIID p250 of human origin.

STORAGE

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

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-46649 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-46649 X, 200 μ g/0.1 ml.

APPLICATIONS

TAF II p250 (N-12) is recommended for detection of TFIID p250 and TAF1L 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).

TAF II p250 (N-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TAF II p250: 250 kDa.

Positive Controls: K-562 nuclear extract: sc-2130, A-431 whole cell lysate: sc-2201 or 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) 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.

SELECT PRODUCT CITATIONS

 Sun, F., et al. 2007. Nuclear reprogramming: the zygotic transcription program is established through an "erase-and-rebuild" strategy. Cell Res. 17: 117-134.

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.



Try TAF II p250 (6B3): sc-735 or TAF II p250 (A-10): sc-393981, our highly recommended monoclonal aternatives to TAF II p250 (N-12). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see TAF II p250 (6B3): sc-735.