

TAF I p48 (A-10): sc-393600

BACKGROUND

For gene transcription governed by RNA polymerase I, the human transcription factor SL1 (mouse TIF-IB) directs the assembly of initiation complexes at the promoter. Like TFIID, which directs transcription by RNA polymerase II, SL1/TIF-IB contains the TATA-binding protein (TBP) and a set of TBP-associated factors (TAFs). The three TAF I subunits, hTAF I p110, hTAF I p63 and hTAF p48 (or mouse TAF I p95, TAF I p68 and TAF I p48) are all integral components of SL1/TIF-IB. The mutually exclusive binding of either TAF I or TAF II subunits to TBP is believed to direct the formation of promoter and RNA polymerase-specific complexes.

REFERENCES

- Learned, R.M., et al. 1985. Purification and characterization of a transcription factor that confers promoter specificity to human RNA polymerase I. *Mol. Cell. Biol.* 5: 1358-1369.
- Clos, J., et al. 1986. A purified transcription factor (TIF-IB) binds to essential sequences of the mouse rDNA promoter. *Proc. Natl. Acad. Sci. USA* 83: 604-608.
- Bell, S.P., et al. 1990. Assembly of alternative multiprotein complexes directs rRNA promoter selectivity. *Genes Dev.* 4: 943-954.
- Comai, L., et al. 1992. The TATA-binding protein and associated factors are integral components of the RNA polymerase I transcription factor, SL1. *Cell* 68: 965-976.
- Eberhard, D., et al. 1993. A TBP-containing multiprotein complex (TIF-IB) mediates transcription specificity of murine RNA polymerase I. *Nucleic Acids Res.* 21: 4180-4186.

CHROMOSOMAL LOCATION

Genetic locus: TAF1A (human) mapping to 1q41; Taf1a (mouse) mapping to 1 H5.

SOURCE

TAF I p48 (A-10) is a mouse monoclonal antibody raised against amino acids 225-300 mapping within an internal region of TAF I p48 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.

TAF I p48 (A-10) is available conjugated to agarose (sc-393600 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393600 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393600 PE), fluorescein (sc-393600 FITC), Alexa Fluor® 488 (sc-393600 AF488), Alexa Fluor® 546 (sc-393600 AF546), Alexa Fluor® 594 (sc-393600 AF594) or Alexa Fluor® 647 (sc-393600 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393600 AF680) or Alexa Fluor® 790 (sc-393600 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

TAF I p48 (A-10) is recommended for detection of TAF I p48 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 TAF I p48 siRNA (h): sc-38486, TAF I p48 siRNA (m): sc-38487, TAF I p48 shRNA Plasmid (h): sc-38486-SH, TAF I p48 shRNA Plasmid (m): sc-38487-SH, TAF I p48 shRNA (h) Lentiviral Particles: sc-38486-V and TAF I p48 shRNA (m) Lentiviral Particles: sc-38487-V.

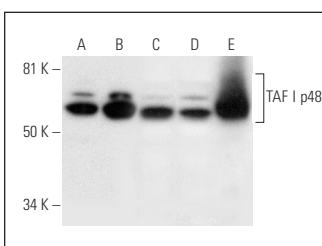
Molecular Weight of TAF I p48: 53 kDa.

Positive Controls: human testis extract: sc-363781, Jurkat whole cell lysate: sc-2204 or Raji whole cell lysate: sc-364236.

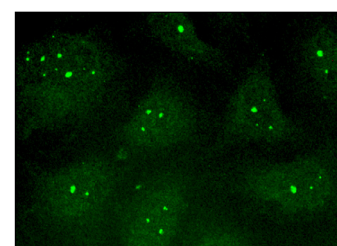
RECOMMENDED SUPPORT REAGENTS

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



TAF I p48 (A-10): sc-393600. Western blot analysis of TAF I p48 expression in Y79 (A) and HeLa (B) nuclear extracts, Jurkat (C) and Raji (D) whole cell lysates and human testis tissue extract (E).



TAF I p48 (A-10): sc-393600. Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar and nuclear localization.

SELECT PRODUCT CITATIONS

- Wang, J., et al. 2023. TFIIB-related factor 1 is a nucleolar protein that promotes RNA polymerase I-directed transcription and tumour cell growth. *Hum. Mol. Genet.* 32: 104-121.

STORAGE

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

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