SANTA CRUZ BIOTECHNOLOGY, INC.

TAF9A/B (G-1): sc-271463

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

In eukaryotic systems, the process of initiating transcription from protein-coding genes requires the presence of RNA polymerase II and a broad family of auxiliary transcription factors. Such factors can be divided into two major functional classes: the basal factors that mediate the transcription of all Pol II genes, including TFIIA, TFIIB, TFIID, TFIIE, TFIIF and TFIIH, and sequence-specific factors that regulate gene expression. TFIID, one of the basal transcription factors, facilitates the preinitiation complex assembly through direct interactions with the TATA promoter element. TAF9B (transcription initiation factor TFIID subunit 9B), also known as TAF9L, is similar to TAF9 and is a component of the TFIID complex. Essential for cell viability, TAF9B is involved in transcriptional activation through its N-terminal association with TP53/p53, a protein essential for transcription. TAF9B is ubiquitously expressed and is localized to the nucleus. TAF9 (transcription initiation factor TFIID subunit 9), also known as TAF9A or TAF II p32, is a 264 amino acid nuclear protein that, like TAF9B, is a component of the TFIID complex and is required for cell viability.

REFERENCES

1. Matsui, T., et al. 1980. Multiple factors required for accurate initiation of transcription by purified RNA polymerase II. J. Biol. Chem. 255: 11992-11996.
2. Buratowski, S., et al. 1989. Five intermediate complexes in transcription initiation by RNA polymerase II. Cell 56: 549-561.
3. Dynlacht, B.D., et al. 1991. Isolation of coactivators associated with the TATA-binding protein that mediate transcriptional activation. Cell 66: 563-576.
4. Takada, R., et al. 1992. Identification of human TFIID components and direct interaction between a 250 kDa polypeptide and the TATA box-binding protein (TFIID). Proc. Natl. Acad. Sci. USA 89: 11809-11813.
5. Klemm, R.D., et al. 1995. Molecular cloning and expression of the 32 kDa subunit of human TFIID reveals interactions with VP16 and TFIIB that mediate transcriptional activation. Proc. Natl. Acad. Sci. USA 92: 5788-5792.
6. Mengus, G., et al. 1995. Cloning and characterization of hTAFII18, hTAFII20 and hTAFII28: three subunits of the human transcription factor TFIID. EMBO J. 14: 1520-1531.

CHROMOSOMAL LOCATION

Genetic locus: TAF9 (human) mapping to 5q13.2, TAF9B (human) mapping to Xq21.1; Taf9 (mouse) mapping to 13 D1, Taf9b (mouse) mapping to X D.

SOURCE

TAF9A/B (G-1) is a mouse monoclonal antibody raised against amino acids 37-131 mapping near the N-terminus of TAF9B 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_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TAF9A/B (G-1) is available conjugated to agarose (sc-271463 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-271463 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271463 PE), fluorescein (sc-271463 FITC), Alexa Fluor® 488 (sc-271463 AF488), Alexa Fluor® 546 (sc-271463 AF546), Alexa Fluor® 594 (sc-271463 AF594) or Alexa Fluor® 647 (sc-271463 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271463 AF680) or Alexa Fluor® 790 (sc-271463 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TAF9A/B (G-1) is recommended for detection of TAF9A and TAF9B 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).

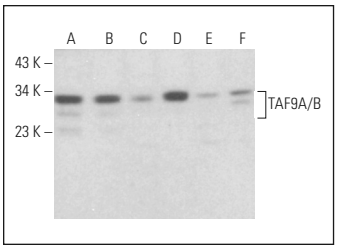
Molecular Weight of TAF9A/TAF9B: 32 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HEL 92.1.7 cell lysate: sc-2270 or SK-BR-3 cell lysate: sc-2218.

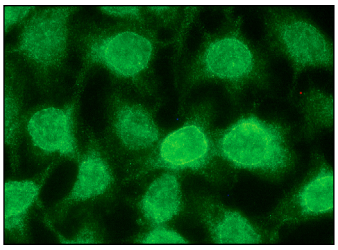
RECOMMENDED SUPPORT REAGENTS

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



TAF9A/B (G-1): sc-271463. Western blot analysis of TAF9A/B expression in K-562 (**A**), HEL 92.1.7 (**B**), SK-BR-3 (**C**), MDA-MB-231 (**D**), BT-20 (**E**) and EOC 20 (**F**) whole cell lysates.



TAF9A/B (G-1): sc-271463. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization..

RESEARCH USE

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