

TAF II p55 (h): 293T Lysate: sc-115277

BACKGROUND

TFIID is a general transcription factor that facilitates the preinitiation complex assembly through direct interactions with the TATA promoter element. A multisubunit complex, TFIID consists of a small TATA-binding polypeptide and several TBP-associated factors (TAFs). TAF II p55 (Transcription initiation factor TFIID 55 kDa subunit), also known as TAF7, TAF2F or TAFII55, is a ubiquitously expressed 349 amino acid component of the TFIID complex. Localized to the nucleus, TAF II p55 interacts directly with the largest subunit of the TFIID complex (TAF II p250), as well as with multiple proteins involved in transcriptional activation. Through these interactions, TAF II p55 inhibits the acetyltransferase activity of its binding partners (such as TAF II p250), thereby suppressing their ability to stimulate transcription. TAF II p55 is, therefore, thought to act as a checkpoint regulator that delays transcription until the preinitiation complex is fully assembled.

REFERENCES

- Chiang, C.M. and Roeder, R.G. 1995. Cloning of an intrinsic human TFIID subunit that interacts with multiple transcriptional activators. *Science* 267: 531-536.
- Lavigne, A.C., Mengus, G., May, M., Dubrovskaya, V., Tora, L., Chambon, P. and Davidson, I. 1996. Multiple interactions between hTAFII55 and other TFIID subunits. Requirements for the formation of stable ternary complexes between hTAFII55 and the TATA-binding protein. *J. Biol. Chem.* 271: 19774-19780.
- Gegonne, A., Weissman, J.D. and Singer, D.S. 2001. TAFII55 binding to TAFII250 inhibits its acetyltransferase activity. *Proc. Natl. Acad. Sci. USA* 98: 12432-12437.
- Zhou, T. and Chiang, C.M. 2001. The intronless and TATA-less human TAF(II)55 gene contains a functional initiator and a downstream promoter element. *J. Biol. Chem.* 276: 25503-25511.
- Munz, C., Psichari, E., Mandilis, D., Lavigne, A.C., Spiliotaki, M., Oehler, T., Davidson, I., Tora, L., Angel, P. and Pintzas, A. 2003. TAF7 (TAFII55) plays a role in the transcription activation by c-Jun. *J. Biol. Chem.* 278: 21510-21516.
- Fukuchi, J., Hiipakka, R.A., Kokontis, J.M., Nishimura, K., Igarashi, K. and Liao, S. 2004. TATA-binding protein-associated factor 7 regulates polyamine transport activity and polyamine analog-induced apoptosis. *J. Biol. Chem.* 279: 29921-29929.
- Gegonne, A., Weissman, J.D., Zhou, M., Brady, J.N. and Singer, D.S. 2006. TAF7: a possible transcription initiation check-point regulator. *Proc. Natl. Acad. Sci. USA* 103: 602-607.
- Sedivá, A., Smith, C.I., Asplund, A.C., Hadac, J., Janda, A., Zeman, J., Hansíková, H., Dvorská, L., Mrázová, L., Velbri, S., Koehler, C., Roesch, K., Sullivan, K.E., Futatani, T. and Ochs, H.D. 2007. Contiguous X-chromosome deletion syndrome encompassing the BTK, TIMM8A, TAF7L, and DRP2 genes. *J. Clin. Immunol.* 27: 640-646.

CHROMOSOMAL LOCATION

Genetic locus: TAF7 (human) mapping to 5q31.3.

PRODUCT

TAF II p55 (h): 293T Lysate represents a lysate of human TAF II p55 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

TAF II p55 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive TAF II p55 antibodies. Recommended use: 10-20 µl per lane.

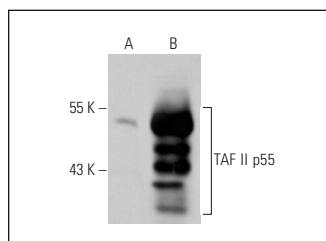
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TAF II p55 (SQ-8): sc-101167 is recommended as a positive control antibody for Western Blot analysis of enhanced human TAF II p55 expression in TAF II p55 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



TAF II p55 (SQ-8): sc-101167. Western blot analysis of TAF II p55 expression in non-transfected: sc-117752 (A) and human TAF II p55 transfected: sc-115277 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.