# SANTA CRUZ BIOTECHNOLOGY, INC.

# Josephin-3 (C-12): sc-161750



# BACKGROUND

Josephin-3 (TATA box-binding protein-associated factor RNA polymerase I subunit D) is a 278 amino acid transcription factor encoded by the human TAF1D gene. The TAF1D gene product is a major component of a TBP and TAF's (TATA box-binding protein-associated factors) complex known as SL1. This SL1 complex is important for the assembly of the preinitiation complex required for RNA polymerase I-dependent transcription. The SL1/TIF-IB complex has been shown to stabilize the nucleolar transcription factor 1/UBTF on rDNA. Impaired function of the SL1 complex leads to reduced levels of Pol I transcription. The TAF1D gene product has been shown to be involved in cell cycle progression and exhibits G<sub>2</sub>/M phase specific phosphorylations. The TAF1D gene product is expressed in most tissues and is localized to the nucleus.

# REFERENCES

- 1. Rudloff, U., Eberhard, D., Tora, L., Stunnenberg, H. and Grummt, I. 1994. TBP-associated factors interact with DNA and govern species specificity of RNA polymerase I transcription. EMBO J. 13: 2611-2616.
- 2. Geiduschek, E.P. and Kassavetis, G.A. 1995. Comparing transcriptional initiation by RNA polymerases I and III. Curr. Opin. Cell Biol. 7: 344-351.
- 3. Servant, N., Marcantonio, D., Th'ng, J.P. and Chalifour, L.E. 2004. TBPassociated factor 1 overexpression induces tolerance to Doxorubicin in confluent H9c2 cells by an increase in Cdk2 activity and cyclin E expression. Mol. Cell. Biochem. 259: 71-81.
- 4. Friedrich, J.K., Panov, K.I., Cabart, P., Russell, J. and Zomerdijk, J.C. 2005. TBP-TAF complex SL1 directs RNA polymerase I pre-initiation complex formation and stabilizes upstream binding factor at the rDNA promoter. J. Biol. Chem. 280: 29551-29558.
- 5. Gorski, J.J., Pathak, S., Panov, K., Kasciukovic, T., Panova, T., Russell, J. and Zomerdijk, J.C. 2007. A novel TBP-associated factor of SL1 functions in RNA polymerase I transcription. EMBO J. 26: 1560-1568.
- 6. Kimura, J., Nguyen, S.T., Liu, H., Taira, N., Miki, Y. and Yoshida, K. 2008. A functional genome-wide RNAi screen identifies TAF1 as a regulator for apoptosis in response to genotoxic stress. Nucleic Acids Res. 36: 5250-5259.
- 7. Pijnappel, W.P., Kolkman, A., Baltissen, M.P., Heck, A.J. and Timmers, H.M. 2009. Quantitative mass spectrometry of TATA binding protein-containing complexes and subunit phosphorylations during the cell cycle. Proteome Sci. 7: 46.
- 8. Mayya, V., Lundgren, D.H., Hwang, S.I., Rezaul, K., Wu, L., Eng, J.K., Rodionov, V. and Han, D.K. 2009. Quantitative phosphoproteomic analysis of T cell receptor signaling reveals system-wide modulation of proteinprotein interactions. Sci. Signal. 2: ra46.

## CHROMOSOMAL LOCATION

Genetic locus: TAF1D (human) mapping to 11q21.

#### **RESEARCH USE**

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

## SOURCE

Josephin-3 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Josephin-3 of human origin.

## PRODUCT

Each vial contains 200 µg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161750 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

Josephin-3 (C-12) is recommended for detection of Josephin-3 of human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with Josephin-1 or Josephin-2.

Suitable for use as control antibody for Josephin-3 siRNA (h): sc-96913, Josephin-3 shRNA Plasmid (h): sc-96913-SH and Josephin-3 shRNA (h) Lentiviral Particles: sc-96913-V.

Molecular Weight (Predicted) of Josephin-3: 32 kDa.

Molecular Weight (Observed) of Josephin-3: 41 kDa.

Positive Control: HeLa whole cell lysate: sc-2200 or T24 cell lysate: sc-2292.

#### DATA



Josephin-3 (C-12): sc-161750. Western blot analysis of Josephin-3 expression in T24 (A) and HeLa (B) whole cell lysates

#### **STORAGE**

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

MONOS Satisfation Guaranteed

Try Josephin-3 (G-12): sc-514821 or Josephin-3 (C-3): sc-515159, our highly recommended monoclonal alternatives to Josephin-3 (C-12).