

# TIF1 $\beta$ (C-16): sc-19168

## BACKGROUND

TIF1 $\beta$ , for transcriptional intermediary factor 1 $\beta$ , also designated KAP1 (for KRAB-associated protein 1), TF1 $\beta$  and TRIM28 (for tripartite motif-containing 28), is a member of the tripartite motif family characterized by three zinc-binding domains — a RING finger, B-boxes and a coiled-coil domain. Like TIF1 $\alpha$ , TIF1 $\beta$  contains both a Cys/His PHD (plant homeodomain) finger and bromodomain that form a cooperative unit required for transcriptional repression. TIF1 $\beta$  mediates transcriptional control by interaction with the Krüppel-associated box (KRAB) repression domain found in many transcription factors and by binding DNA through its zinc finger. The human TIF1 $\beta$  gene maps to human chromosome 19q13.4 and encodes an 835 amino acid nuclear protein.

## REFERENCES

- Friedman, J., et al. 1996. KAP-1, a novel corepressor for the highly conserved KRAB repression domain. *Genes Dev.* 10: 2067-2078.
- Moosmann, P., et al. 1996. Transcriptional repression by RING finger protein TIF1  $\beta$  that interacts with the KRAB repressor domain of KRX1. *Nucleic Acids Res.* 24: 4859-4867.
- Gebelein, B. and Urrutia, R. 2001. Sequence-specific transcriptional repression by KS1, a multiple-zinc-finger-Krüppel-associated box protein. *Mol. Cell. Biol.* 21: 928-939.
- Schultz, D., et al. 2001. Targeting histone deacetylase complexes via KRAB-zinc finger proteins: the PHD and bromodomains of KAP-1 form a cooperative unit that recruits a novel isoform of the Mi-2 $\alpha$  subunit of NuRD. *Genes Dev.* 15: 428-443.
- Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 601742. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- LocusLink Report (LocusID: 10155). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## CHROMOSOMAL LOCATION

Genetic locus: TRIM28 (human) mapping to 19q13.43; Trim28 (mouse) mapping to 7 A1.

## SOURCE

TIF1 $\beta$  (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TIF1 $\beta$  of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-19168 X, 200  $\mu$ g/0.1 ml.

Blocking peptide available for competition studies, sc-19168 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

TIF1 $\beta$  (C-16) is recommended for detection of TIF1 $\beta$  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).

TIF1 $\beta$  (C-16) is also recommended for detection of TIF1 $\beta$  in additional species, including canine and bovine.

Suitable for use as control antibody for TIF1 $\beta$  siRNA (h): sc-38550, TIF1 $\beta$  siRNA (m): sc-38551, TIF1 $\beta$  shRNA Plasmid (h): sc-38550-SH, TIF1 $\beta$  shRNA Plasmid (m): sc-38551-SH, TIF1 $\beta$  shRNA (h) Lentiviral Particles: sc-38550-V and TIF1 $\beta$  shRNA (m) Lentiviral Particles: sc-38551-V.

TIF1 $\beta$  (C-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TIF1 $\beta$ : 100 kDa.

Positive Controls: CCRF-CEM nuclear extract: sc-2146 or CCRF-CEM cell lysate: sc-2225.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

## SELECT PRODUCT CITATIONS

- Bártová, E., Pacherník, J., Kozubík, A. and Kozubek, S. 2007. Differentiation-specific association of HP1 $\alpha$  and HP1 $\beta$  with chromocentres is correlated with clustering of TIF1 $\beta$  at these sites. *Histochem. Cell Biol.* 127: 375-388.
- Sridharan, R. and Smale, S.T. 2007. Predominant interaction of both Ikaros and Helios with the NuRD complex in immature thymocytes. *J. Biol. Chem.* 282: 30227-30238.
- Amanchy, R., Zhong, J., Hong, R., Kim, J.H., Gucek, M., Cole, R.N., Molina, H. and Pandey, A. 2009. Identification of c-Src tyrosine kinase substrates in platelet-derived growth factor receptor signaling. *Mol. Oncol.* 3: 439-450.

## RESEARCH USE

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



Try **TIF1 $\beta$  (23): sc-136102**, our highly recommended monoclonal alternative to TIF1 $\beta$  (C-16).