

# TIF1 $\beta$ (23): sc-136102

## 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 19q13.43 and encodes an 835 amino acid nuclear protein.

## REFERENCES

1. Friedman, J., et al. 1996. KAP-1, a novel corepressor for the highly conserved KRAB repression domain. *Genes Dev.* 10: 2067-2078.
2. 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.
3. 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.
4. 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.
5. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 601742. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

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

## SOURCE

TIF1 $\beta$  (23) is a mouse monoclonal antibody raised against amino acids 685-818 of TIF1 $\beta$  of mouse origin.

## PRODUCT

Each vial contains 50  $\mu$ g IgG<sub>1</sub> in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

TIF1 $\beta$  (23) 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) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); not recommended for immunoprecipitation.

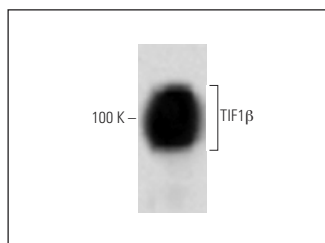
TIF1 $\beta$  (23) is also recommended for detection of TIF1 $\beta$  in additional species, including canine.

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.

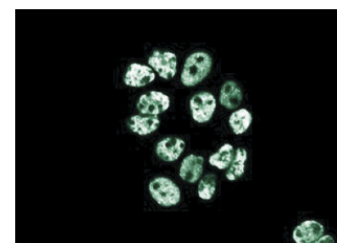
Molecular Weight of TIF1 $\beta$ : 100 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, CCRF-CEM cell lysate: sc-2225 or CCRF-CEM nuclear extract: sc-2146.

## DATA



TIF1 $\beta$  (23): sc-136102. Western blot analysis of TIF1 $\beta$  expression in rat pituitary tissue extract.



TIF1 $\beta$  (23): sc-136102. Immunofluorescence staining of human endothelial cells showing nuclear staining.

## SELECT PRODUCT CITATIONS

1. Hu, C., et al. 2012. Roles of Krüppel-associated box (KRAB)-associated co-repressor KAP1 Ser-473 phosphorylation in DNA damage response. *J. Biol. Chem.* 287: 18937-18952.

## RESEARCH USE

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