

## TIF1 $\alpha$ (L-15): sc-15257

### BACKGROUND

TIF1 $\alpha$  mediates transcriptional events by interactions with the AF2 region of several nuclear receptors, such as the estrogen, retinoic acid and vitamin D3 receptors. TIF1 $\alpha$  localizes to nuclear bodies and is thought to associate with chromatin and heterochromatin-associated factors. TIF1 $\alpha$  is a member of the tripartite motif (TRIM) family. The TRIM motif includes three zinc-binding domains (RING, a B-box type 1 and a B-box type 2) and a coiled-coil region. The TIF1 $\alpha$  gene, which maps to human chromosome 7q33, encodes two alternatively spliced transcripts. However, the full length nature of one variant has not been determined. A TIF1 $\alpha$  homolog (designated bonus) has been identified in *Drosophila* and is associated with several genes that are implicated in the ecdysone pathway, a nuclear hormone receptor pathway required throughout *Drosophila* development, suggesting a conserved functional role for the protein throughout the course of evolution.

### REFERENCES

- Fraser, R.A., Heard, D.J., Adam, S., Lavigne, A.C., Le Douarin, B., Tora, L., Losson, R., Rochette-Egly, C. and Chambon, P. 1998. The putative cofactor TIF1 $\alpha$  is a protein kinase that is hyperphosphorylated upon interaction with liganded nuclear receptors. *J. Biol. Chem.* 273: 16199-16204.
- Nielsen, A.L., Ortiz, J.A., You, J., Oulad-Abdelghani, M., Khechumian, R., Gansmuller, A., Chambon, P. and Losson, R. 1999. Interaction with members of the heterochromatin protein 1 (HP1) family and histone deacetylation are differentially involved in transcriptional silencing by members of the TIF1 family. *EMBO J.* 18: 6385-6395.
- Klugbauer, S. and Rabes, H.M. 1999. The transcription coactivator HTIF1 and a related protein are fused to the Ret receptor tyrosine kinase in childhood papillary thyroid carcinomas. *Oncogene* 18: 4388-4393.
- Beckstead, R., Ortiz, J.A., Sanchez, C., Prokopenko, S.N., Chambon, P., Losson, R. and Bellen, H.J. 2001. Bonus, a *Drosophila* homolog of TIF1 proteins, interacts with nuclear receptors and can inhibit  $\beta$ FTZ-F1-dependent transcription. *Mol. Cell.* 7: 753-765.
- LocusLink Report (LocusID: 8805). <http://www.ncbi.nlm.nih.gov/LocusLink/>

### CHROMOSOMAL LOCATION

Genetic locus: TRIM24 (human) mapping to 7q33; Trim24 (mouse) mapping to 6 B1.

### SOURCE

TIF1 $\alpha$  (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TIF1 $\alpha$  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.

Blocking peptide available for competition studies, sc-15257 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-15257 X, 200  $\mu$ g/0.1 ml.

### APPLICATIONS

TIF1 $\alpha$  (L-15) is recommended for detection of TIF1 $\alpha$  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 $\alpha$  (L-15) is also recommended for detection of TIF1 $\alpha$  in additional species, including equine, bovine, porcine and avian.

Suitable for use as control antibody for TIF1 $\alpha$  siRNA (h): sc-38548, TIF1 $\alpha$  siRNA (m): sc-38549, TIF1 $\alpha$  shRNA Plasmid (h): sc-38548-SH, TIF1 $\alpha$  shRNA Plasmid (m): sc-38549-SH, TIF1 $\alpha$  shRNA (h) Lentiviral Particles: sc-38548-V and TIF1 $\alpha$  shRNA (m) Lentiviral Particles: sc-38549-V.

TIF1 $\alpha$  (L-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TIF1 $\alpha$ : 117 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or IMR-32 cell lysate: sc-2409.

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

### SELECT PRODUCT CITATIONS

- Torres-Padilla, M.E. and Zernicka-Goetz, M. 2006. Role of TIF1 $\alpha$  as a modulator of embryonic transcription in the mouse zygote. *J. Cell Biol.* 174: 329-338.

### STORAGE

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

### RESEARCH USE

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



Try TIF1 $\alpha$  (C-4): sc-271266, our highly recommended monoclonal alternative to TIF1 $\alpha$  (L-15).