

## TBL1X (T-15): sc-34536

### BACKGROUND

TBL1, for transducin  $\beta$ -like 1, is a ubiquitously expressed protein that contains six distinct  $\beta$ -transducin repeats, known also as WD40 repeats, within the C-terminal domain. Transducin  $\beta$ -like 1 Y-linked protein (TBL1Y), also designated F-box-like/WD-repeat protein, and transducin  $\beta$ -like 1 X protein (TBL1X), also known as SMAP55, are nuclear F-box-like proteins. They are important in the ubiquitin/19S proteasome complex recruitment to nuclear receptor-regulated transcription units. TBL1X is a part of the N-CoR repressor complex together with N-CoR1, N-CoR2, HDAC3, TBL1R, CORO2A and GPS2. It is also a component of the E3 ubiquitin ligase complex. TBL1X, which can interact with Histones H2B, H3a and H4, is similar to TBL1Y but is localized on chromosome Xp22.3. Defects in TBL1X may cause an X-linked human disorder called ocular albinism with late-onset sensorineural deafness (OASD). TBL1Y is an X-degenerate gene that is homologous to TBL1X. TBL1Y, a single-copy gene, localizes to human chromosome Yp11.2 in the male-specific region of chromosome Y (MSY). This region of the Y chromosome does not engage in X-Y crossover events. TBL1Y is primarily expressed in fetal brain and prostate. TBL1X and TBL1Y are crucial in nuclear receptor mediated transcription activation.

### REFERENCES

1. Disteche, C.M., et al. 1998. Mapping of the murine TBL1 gene reveals a new rearrangement between mouse and human X chromosomes. *Mamm. Genome* 9: 1062-1064.
2. Bassi, M.T., et al. 1999. X-linked late-onset sensorineural deafness caused by a deletion involving OA1 and a novel gene containing WD40 repeats. *Am. J. Hum. Genet.* 64: 1604-1616.
3. Guenther, M.G., et al. 2000. A core SMRT corepressor complex containing HDAC3 and TBL1, a WD40 repeat protein linked to deafness. *Genes Dev.* 14: 1048-1057.
4. Skaletsky, H., et al. 2003. The male-specific region of the human Y chromosome is a mosaic of discrete sequence classes. *Nature* 423: 825-837.

### CHROMOSOMAL LOCATION

Genetic locus: TBL1X (human) mapping to Xp22.3.

### SOURCE

TBL1X (T-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TBL1X 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-34536 X, 200  $\mu$ g/0.1 ml.

Blocking peptide available for competition studies, sc-34536 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

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

### APPLICATIONS

TBL1X (T-15) is recommended for detection of TBL1X of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 TBL1X of mouse or rat origin or TBL1Y of human origin.

Suitable for use as control antibody for TBL1X siRNA (h): sc-38888, TBL1X shRNA Plasmid (h): sc-38888-SH and TBL1X shRNA (h) Lentiviral Particles: sc-38888-V.

TBL1X (T-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

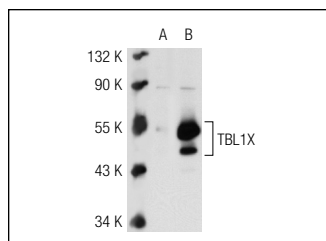
Molecular Weight of TBL1X: 57 kDa.

Positive Controls: Y79 nuclear extract: sc-2126.

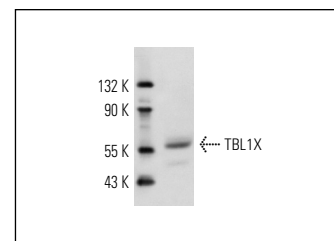
### RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

### DATA



TBL1X (T-15): sc-34536. Western blot analysis of TBL1X expression in non-transfected: sc-117752 (A) and human TBL1X transfected: sc-115235 (B) 293T whole cell lysates.



TBL1X (T-15): sc-34536. Western blot analysis of TBL1X expression in Y79 nuclear extract.

### RESEARCH USE

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

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Try **TBL1 (H-3): sc-137006** or **TBL1X (F-2): sc-365661**, our highly recommended monoclonal alternatives to TBL1X (T-15).