SANTA CRUZ BIOTECHNOLOGY, INC.

TBL1 (H-367): sc-11391

BACKGROUND

TBL1, for transducin β-like 1, is a ubiquitously expressed protein that contains six distinct β-transducin repeats, known also as WD40 repeats, within the C-terminal domain. Transducin β-like 1 Y-linked protein (TBL1Y), also designated F-box-like/WD-repeat protein, and transducin β-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 Xp22.31. 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.

CHROMOSOMAL LOCATION

Genetic locus: TBL1X (human) mapping to Xp22.31, TBL1Y (human) mapping to Yp11.2; Tbl1x (mouse) mapping to X A7.3.

SOURCE

TBL1 (H-367) is a rabbit polyclonal antibody raised against amino acids 211-577 of TBL1X of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for ChIP application, sc-11391 X, 200 µg/0.1 ml.

APPLICATIONS

TBL1 (H-367) is recommended for detection of TBL1X of mouse, rat and human origin and TBL1Y 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

TBL1 (H-367) is also recommended for detection of TBL1X in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TBL1X siRNA (m): sc-38889, TBL1X shRNA Plasmid (m): sc-38889-SH and TBL1X shRNA (m) Lentiviral Particles: sc-38889-V.

TBL1 (H-367) X TransCruz antibody is recommended for ChIP assays.

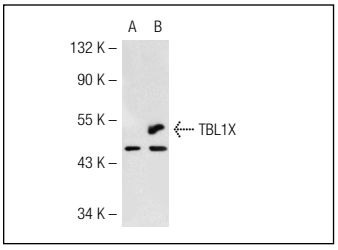
Molecular Weight of TBL1: 57 kDa.

Positive Controls: TBL1X (h): 293T Lysate: sc-115235, MCF7 whole cell lysate: sc-2206 or HeLa whole cell lysate: sc-2200.

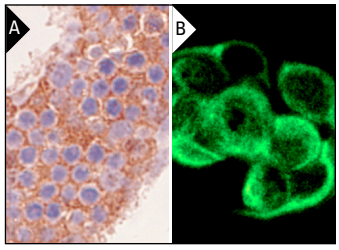
STORAGE

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

DATA



TBL1 (H-367): sc-11391. Western blot analysis of TBL1X expression in non-transfected: sc-117752 (**A**) and human TBL1X transfected: sc-115235 (**B**) 293T whole cell lysates.



TBL1 (H-367): sc-11391. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse testis tissue (**A**). Immunofluorescence staining of methanol-fixed MCF7 cells showing cytoskeletal localization (**B**).

SELECT PRODUCT CITATIONS

1. Baek, S., et al. 2002. Exchange of N-CoR corepressor and TIP60 coactivator complexes links gene expression by NFκB and β-amyloid precursor protein. Cell 110: 55-67.
2. Liu, X.F., et al. 2004. Recruitment of distinct chromatin-modifying complexes by tamoxifen-complexed estrogen receptor at natural target gene promoters *in vivo*. J. Biol. Chem. 279: 15050-15058.
3. Degenhardt, T., et al. 2009. Population-level transcription cycles derive from stochastic timing of single-cell transcription. Cell 138: 489-501.
4. Toropainen, S., et al. 2010. The down-regulation of the human MYC gene by the nuclear hormone 1α,25-dihydroxyvitamin D3 is associated with cycling of corepressors and histone deacetylases. J. Mol. Biol. 400: 284-294.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.