SANTA CRUZ BIOTECHNOLOGY, INC.

TBL1X (F-2): sc-365661

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.

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.

CHROMOSOMAL LOCATION

Genetic locus: TBL1X (human) mapping to Xp22.31.

SOURCE

TBL1X (F-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 119-148 within an internal region of TBL1X of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 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-365661 X, 200 µg/0.1 ml.

TBL1X (F-2) is available conjugated to agarose (sc-365661 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365661 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365661 PE), fluorescein (sc-365661 FITC), Alexa Fluor® 488 (sc-365661 AF488), Alexa Fluor® 546 (sc-365661 AF546), Alexa Fluor® 594 (sc-365661 AF594) or Alexa Fluor® 647 (sc-365661 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365661 AF680) or Alexa Fluor® 790 (sc-365661 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365661 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

TBL1X (F-2) is recommended for detection of TBL1X of human origin by Western Blotting (starting dilution 1:100, 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

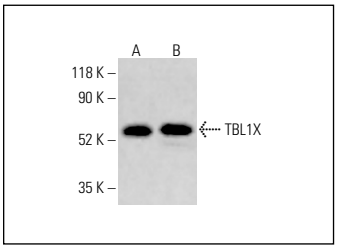
Suitable for use as control antibody for TBL1X siRNA (h): sc-38888, TBL1X shRNA Plasmid (h): sc-38888-SH and TBL1X shRNA (h) Lentiviral Particles: sc-38888-V.

TBL1X (F-2) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

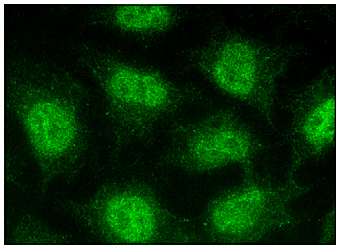
Molecular Weight of TBL1X: 57 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Y79 nuclear extract: sc-2126 or HeLa whole cell lysate: sc-2200.

DATA



TBL1X (F-2): sc-365661. Western blot analysis of TBL1X expression in HeLa (**A**) and K-562 (**B**) whole cell lysates. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



TBL1X (F-2): sc-365661. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Rivero, S., et al. 2019. TBL1 is required for the mesenchymal phenotype of transformed breast cancer cells. Cell Death Dis. 10: 95.
2. Gong, Z., et al. 2023. Long noncoding RNA MIAT regulates TP53 ubiquitination and expedites prostate adenocarcinoma progression by recruiting TBL1X. Biochim. Biophys. Acta Mol. Cell Res. 1870: 119527.

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.

PROTOCOLS

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