SANTA CRUZ BIOTECHNOLOGY, INC.

TBL1XR1 (L-08): sc-100908

BACKGROUND

TBL1XR1 (transducin (β)-like 1 X-linked receptor 1), also known as C21, DC42, IRA1 or TBLR1 (TBL1-related protein 1), is a ubiquitously expressed protein that belongs to the WD repeat EBI family of proteins. Localizing to the cytoplasm and the nucleus, TBL1XR1 contains eight WD repeats, one LisH domain and one F-box-like domain. TBL1XR1 functions as a transcriptional regulator, acting as a component of the co-repressor machinery (NCoR/SMRT complex) that is required for the activation of many transcription factors. Specifically, TBL1XR1 is essential for the recruitment of proteasome machinery and, therefore, the subsequent degradation of co-repressors upon ligand binding. The knockdown of TBL1XR1 inhibits β-catenin-mediated transcription and greatly suppresses the growth of head and neck squamous cell carcinoma cells. This suggests that TBL1XR1 may be a useful target in anti-cancer therapy.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608628. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
2. Yoon, H.G., et al. 2003. Purification and functional characterization of the human N-CoR complex: the roles of HDAC3, TBL1 and TBLR1. EMBO J. 22: 1336-1346.

CHROMOSOMAL LOCATION

Genetic locus: TBL1XR1 (human) mapping to 3q26.32.

SOURCE

TBL1XR1 (L-08) is a mouse monoclonal antibody raised against partial recombinant protein mapping to an internal region of TBL1XR1 of human origin.

PRODUCT

Each vial contains 50 µg IgG_1 kappa light chain in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TBL1XR1 (L-08) is recommended for detection of TBL1XR1 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), immunohistochemistry (including paraffin-embedded sections) (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 TBL1XR1 siRNA (h): sc-106601, TBL1XR1 shRNA Plasmid (h): sc-106601-SH and TBL1XR1 shRNA (h) Lentiviral Particles: sc-106601-V.

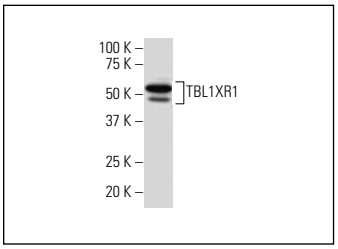
Molecular Weight of TBL1XR1: 55 kDa.

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

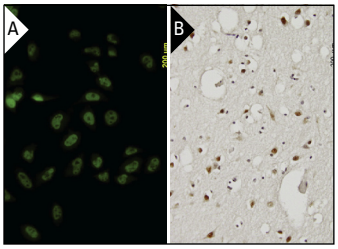
STORAGE

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

DATA



TBL1XR1 (L-08): sc-100908. Western blot analysis of TBL1XR1 expression in HeLa whole cell lysate.



TBL1XR1 (L-08): sc-100908. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human cerebral cortex tissue showing nuclear localization (**B**).

SELECT PRODUCT CITATIONS

1. Kadota, M., et al. 2009. Identification of novel gene amplifications in breast cancer and coexistence of gene amplification with an activating mutation of PIK3CA. Cancer Res. 69: 7357-7365.
2. Bantscheff, M., et al. 2011. Chemoproteomics profiling of HDAC inhibitors reveals selective targeting of HDAC complexes. Nat. Biotechnol. 29: 255-265.
3. Jones, C.L., et al. 2014. Loss of TBL1XR1 disrupts glucocorticoid receptor recruitment to chromatin and results in glucocorticoid resistance in a B-lymphoblastic leukemia model. J. Biol. Chem. 289: 20502-20515.
4. Daniels, G., et al. 2016. Cytoplasmic, full length and novel cleaved variant, TBLR1 reduces apoptosis in prostate cancer under androgen deprivation. Oncotarget 7: 39556-39571.
5. van de Poel, S., et al. 2018. Identification and functional characterization of phosphorylation sites of the human papillomavirus 31 E8^E2 protein. J. Virol. 92: e01743-17.
6. Zhang, T., et al. 2020. TBL1XR1 is involved in c-Met-mediated tumorigenesis of human nonsmall cell lung cancer. Cancer Gene Ther. 27: 136-146.
7. Tillotson, R., et al. 2021. Neuronal non-CG methylation is an essential target for MeCP2 function. Mol. Cell 81: 1260-1275.e12.
8. Zhou, Q., et al. 2021. Deficiency of TBL1XR1 causes asthenozoospermia. Andrologia 53: e13980.
9. Bray, D., et al. 2022. CASCADE: high-throughput characterization of regulatory complex binding altered by non-coding variants. Cell Genom. 2: 100098.
9. Carrasco Pro, S., et al. 2023. Widespread perturbation of ETS factor binding sites in cancer. Nat. Commun. 14: 913.

RESEARCH USE

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