SANTA CRUZ BIOTECHNOLOGY, INC.

Teneurin-1 (B-1): sc-398018

BACKGROUND

Teneurin-1 (Ten-1), also known as tenascin M1 (TEN-M1), TNM, ODZ1 (odz, odd Oz/ten-m homolog 1) or ODZ3, is a 2,725 amino acid single-pass type II membrane protein that belongs to the tenascin family and Teneurin subfamily. Localized to the membrane and expressed in fetal brain, Teneurin-1 exists as a disulfide-liked homodimer that is thought to function as a cellular signal transducer. Teneurin-1 contains cytoplasmic proline-rich regions that may function as docking domains for SH3-containing proteins, along with 8 EGF-like domains, 23 YD repeats, 5 NHL repeats and one Teneurin N-terminal domain. The gene encoding Teneurin-1 maps to human chromosome Xq25 and mouse chromosome X A4.

REFERENCES

1. Hays, M.D., et al. 1991. Congenital acquired immunodeficiency syndrome presenting as cor pulmonale in a 10-year-old girl. Am. Heart J. 121: 929-931.
2. Ben-Zur, T. and Wides, R. 1999. Mapping homologs of *Drosophila* odd Oz (odz): Doc4/Odz4 to mouse chromosome 7, Odz1 to mouse chromosome 11; and ODZ3 to human chromosome Xq25. Genomics 58: 102-103.
3. Minet, A.D., et al. 1999. Teneurin-1, a vertebrate homologue of the *Drosophila* pair-rule gene ten-m, is a neuronal protein with a novel type of heparin-binding domain. J. Cell Sci. 112: 2019-2032.
4. Ben-Zur, T., et al. 2000. The mammalian Odz gene family: homologs of a *Drosophila* pair-rule gene with expression implying distinct yet overlapping developmental roles. Dev. Biol. 217: 107-120.

CHROMOSOMAL LOCATION

Genetic locus: TENM1 (human) mapping to Xq25; Tenm1 (mouse) mapping to X A4.

SOURCE

Teneurin-1 (B-1) is a mouse monoclonal antibody raised against amino acids 26-135 mapping near the N-terminus of Teneurin-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Teneurin-1 (B-1) is available conjugated to agarose (sc-398018 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398018 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398018 PE), fluorescein (sc-398018 FITC), Alexa Fluor® 488 (sc-398018 AF488), Alexa Fluor® 546 (sc-398018 AF546), Alexa Fluor® 594 (sc-398018 AF594) or Alexa Fluor® 647 (sc-398018 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398018 AF680) or Alexa Fluor® 790 (sc-398018 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

Teneurin-1 (B-1) is recommended for detection of Teneurin-1 of mouse, rat and 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), 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).

Teneurin-1 (B-1) is also recommended for detection of Teneurin-1 in additional species, including porcine.

Suitable for use as control antibody for Teneurin-1 siRNA (h): sc-106324, Teneurin-1 siRNA (m): sc-154189, Teneurin-1 shRNA Plasmid (h): sc-106324-SH, Teneurin-1 shRNA Plasmid (m): sc-154189-SH, Teneurin-1 shRNA (h) Lentiviral Particles: sc-106324-V and Teneurin-1 shRNA (m) Lentiviral Particles: sc-154189-V.

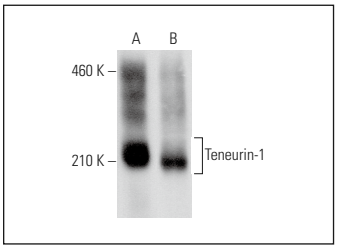
Molecular Weight of Teneurin-1: 305 kDa.

Positive Controls: mouse brain extract: sc-2253 or human brain extract: sc-364375.

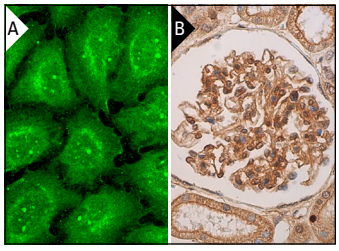
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Teneurin-1 (B-1): sc-398018. Western blot analysis of Teneurin-1 expression in mouse brain (**A**) and human brain (**B**) tissue extracts.



Teneurin-1 (B-1): sc-398018. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing membrane, cytoplasmic and nuclear staining of cells in glomeruli and cells in tubules (**B**).

RESEARCH USE

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