

# Teneurin-3 (V-12): sc-136920

## BACKGROUND

Teneurin-3, also known as Ten-3, TNM3 or ODZ3, is a 2,699 amino acid single-pass type II membrane protein that contains 25 YD repeats, 8 EGF-like domains, 5 NHL repeats and one Teneurin N-terminal domain. Localized to the membrane and expressed in brain, testis and ovary, Teneurin-3 exists as a disulfide-linked homodimer that is thought to function as a cellular signal transducer. Additionally, Teneurin-3 may participate in eye-specific patterning in the visual pathway and is required for aligned binocular vision. The gene encoding Teneurin-3 maps to chromosome 4. Representing approximately 6% of the human genome, chromosome 4 contains nearly 900 genes, one of which is the Huntingtin gene, which is found to encode an expanded glutamine tract in cases of Huntington's disease. FGFR-3 is also encoded on chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

## REFERENCES

- Mieda, M., et al. 1999. Compartmentalized expression of zebrafish ten-m3 and ten-m4, homologues of the *Drosophila* ten(m)/odd Oz gene, in the central nervous system. *Mech. Dev.* 87: 223-227.
- Nagase, T., et al. 2000. Prediction of the coding sequences of unidentified human genes. XVII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 7: 143-150.
- 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.
- Feng, K., et al. 2002. All four members of the Ten-m/Odz family of transmembrane proteins form dimers. *J. Biol. Chem.* 277: 26128-26135.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610083. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Zhou, X.H., et al. 2003. The murine Ten-m/Odz genes show distinct but overlapping expression patterns during development and in adult brain. *Gene Expr. Patterns* 3: 397-405.

## CHROMOSOMAL LOCATION

Genetic locus: ODZ3 (human) mapping to 4q35.1; Odz3 (mouse) mapping to 8 B1.2.

## SOURCE

Teneurin-3 (V-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an extracellular domain of Teneurin-3 of human origin.

## STORAGE

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

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136920 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Teneurin-3 (V-12) is recommended for detection of Teneurin-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Teneurin-1 or Teneurin-2.

Suitable for use as control antibody for Teneurin-3 siRNA (h): sc-106789, Teneurin-3 siRNA (m): sc-154191, Teneurin-3 shRNA Plasmid (h): sc-106789-SH, Teneurin-3 shRNA Plasmid (m): sc-154191-SH, Teneurin-3 shRNA (h) Lentiviral Particles: sc-106789-V and Teneurin-3 shRNA (m) Lentiviral Particles: sc-154191-V.

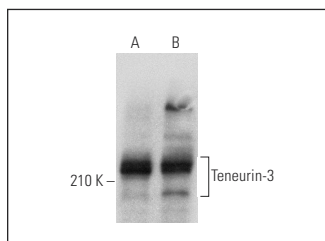
Molecular Weight of Teneurin-3: 301 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or IMR-32 cell lysate: sc-2409.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Teneurin-3 (V-12): sc-136920. Western blot analysis of Teneurin-3 expression in K-562 (A) and IMR-32 (B) whole cell lysates.

## RESEARCH USE

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