

## Tns3 (H-300): sc-134908

### BACKGROUND

The tensin (Tns) family of proteins is involved in the maintenance of cellular structure by anchoring actin filaments at the focal adhesion via F-actin binding and capping activities. Tns proteins also contain a Src homology 2 (SH2) domain and have the ability to be phosphorylated, suggesting a role in signal transduction cascades. These diverse characteristics indicate that Tns proteins may be important links between the cytoskeleton and signal transduction pathways. Tns3, also known as TEM6 or TENS1, localizes to the focal adhesions of the plasma membrane. It is predominantly expressed in thyroid and placenta but can also be found in heart, liver, brain, prostate, pancreas, kidney, lung, skeletal muscle and white blood cells. Tns3 is essential for proper growth and development, as suggested by growth retardation and death in a number of Tns3<sup>-/-</sup> mice.

### REFERENCES

1. Bockholt, S.M. and Burridge, K. 1993. Cell spreading on extracellular matrix proteins induces tyrosine phosphorylation of tensin. *J. Biol. Chem.* 268: 14565-14567.
2. Lo, S.H., et al. 1994. Interactions of tensin with actin and identification of its three distinct actin-binding domains. *J. Cell Biol.* 125: 1067-1075.
3. Lo, S.H., et al. 1994. Tensin: a potential link between the cytoskeleton and signal transduction. *Bioessays* 16: 817-823.
4. Chuang, J.Z., et al. 1995. Molecular cloning, expression, and mapping of the high affinity actin-capping domain of chicken cardiac tensin. *J. Cell Biol.* 128: 1095-1109.
5. Haynie, D.T. and Ponting, C.P. 1996. The N-terminal domains of tensin and auxilin are phosphatase homologues. *Protein Sci.* 5: 2643-2646.
6. Cui, Y., et al. 2004. Epidermal growth factor modulates tyrosine phosphorylation of a novel tensin family member, tensin3. *Mol. Cancer Res.* 2: 225-232.

### CHROMOSOMAL LOCATION

Genetic locus: TNS3 (human) mapping to 7p12.3; Tns3 (mouse) mapping to 11 A1.

### SOURCE

Tns3 (H-300) is a rabbit polyclonal antibody raised against amino acids 721-1020 mapping within an internal region of Tns3 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.

### 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.

### APPLICATIONS

Tns3 (H-300) is recommended for detection of Tns3 of human and, to a lesser extent, mouse and rat 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Tns3 siRNA (h): sc-63117, Tns3 siRNA (m): sc-63118, Tns3 shRNA Plasmid (h): sc-63117-SH, Tns3 shRNA Plasmid (m): sc-63118-SH, Tns3 shRNA (h) Lentiviral Particles: sc-63117-V and Tns3 shRNA (m) Lentiviral Particles: sc-63118-V.

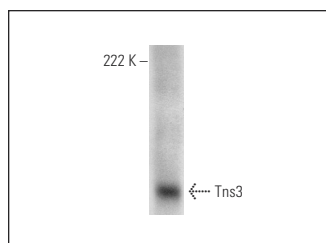
Molecular Weight of Tns3 isoforms 1/2/3/4: 155/129/44/28 kDa.

Positive Controls: Hs67 whole cell lysate.

### 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



Tns3 (H-300): sc-134908. Western blot analysis of Tns3 expression in Hs67 whole cell lysate.

### SELECT PRODUCT CITATIONS

1. Cao, X., et al. 2015. A phosphorylation switch controls the spatiotemporal activation of Rho GTPases in directional cell migration. *Nat. Commun.* 6: 7721.

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Try **Tns3 (C-2): sc-376367**, our highly recommended monoclonal alternative to Tns3 (H-300).