

Tns (H-300): sc-28542

BACKGROUND

Tensin (Tns) is an actin filament capping protein localized to various types of adherens junctions in muscle and non-muscle cells. Tensin is involved in the maintenance of cellular structure by anchoring actin filaments at the focal adhesion via F-Actin binding and capping activities. However, tensin also contains a Src homology 2 (SH2) domain and has the ability to be phosphorylated. Tensin is phosphorylated on tyrosine, serine and threonine residues, suggesting that it might participate in signal transduction cascades. These diverse characteristics in a single molecule indicate that tensin may be an important link between the cytoskeleton and signal transduction pathways.

REFERENCES

1. Bockholt, S.M., et al. 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.

CHROMOSOMAL LOCATION

Genetic locus: TNS1 (human) mapping to 2q35; Tns1 (mouse) mapping to 1 C3.

SOURCE

Tns (H-300) is a rabbit polyclonal antibody raised against amino acids 661-960 mapping within an internal region of Tns 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.

APPLICATIONS

Tns (H-300) is recommended for detection of tensin of mouse, rat and 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 Tns siRNA (h): sc-44159, Tns siRNA (m): sc-43462, Tns shRNA Plasmid (h): sc-44159-SH, Tns shRNA Plasmid (m): sc-43462-SH, Tns shRNA (h) Lentiviral Particles: sc-44159-V and Tns shRNA (m) Lentiviral Particles: sc-43462-V.

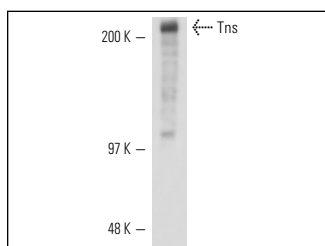
Molecular Weight of Tns: 200 kDa.

Positive Controls: A-10 cell lysate: sc-3806.

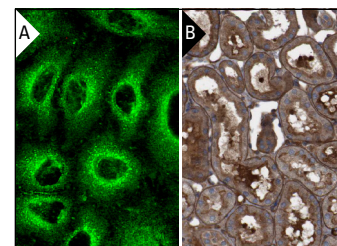
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Tns (H-300): sc-28542. Western blot analysis of Tns expression in A-10 whole cell lysate.



Tns (H-300): sc-28542. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing basement membrane and cytoplasmic staining of cells in glomeruli and tubules. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

1. Ferrando, I.M., et al. 2012. Identification of targets of c-Src tyrosine kinase by chemical complementation and phosphoproteomics. *Mol. Cell. Proteomics* 11: 355-369.
2. Cao, H.H., et al. 2015. A three-protein signature and clinical outcome in esophageal squamous cell carcinoma. *Oncotarget* 6: 5435-5448.

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.