

Tns3 (C-2): sc-376367

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^{-/-} mice.

CHROMOSOMAL LOCATION

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

SOURCE

Tns3 (C-2) is a mouse monoclonal antibody raised against amino acids 721-1020 mapping within an internal region of Tns3 of human origin.

PRODUCT

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

Tns3 (C-2) is available conjugated to agarose (sc-376367 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376367 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376367 PE), fluorescein (sc-376367 FITC), Alexa Fluor® 488 (sc-376367 AF488), Alexa Fluor® 546 (sc-376367 AF546), Alexa Fluor® 594 (sc-376367 AF594) or Alexa Fluor® 647 (sc-376367 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376367 AF680) or Alexa Fluor® 790 (sc-376367 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Tns3 (C-2) is recommended for detection of Tns3 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).

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.

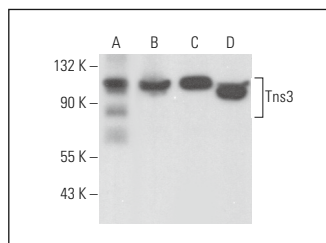
Molecular Weight of Tns3 isoforms 1/2/3/4: 155/129/44/28 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, Hep G2 cell lysate: sc-2227 or PC-3 cell lysate: sc-2220.

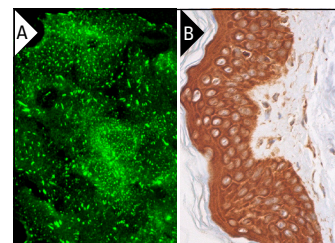
RECOMMENDED SUPPORT REAGENTS

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



Tns3 (C-2): sc-376367. Western blot analysis of Tns3 expression in Hep G2 (A), PC-3 (B), RAW 264.7 (C) and KNRK (D) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



Tns3 (C-2): sc-376367. Immunofluorescence staining of formalin-fixed Hep G2 cells showing focal adhesions and cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of epidermal cells (B).

SELECT PRODUCT CITATIONS

- Antoniades, I., et al. 2021. FAK displacement from focal adhesions: a promising strategy to target processes implicated in cancer progression and metastasis. *Cell Commun. Signal.* 19: 3.
- Hadjisavva, R., et al. 2022. Adherens junctions stimulate and spatially guide integrin activation and extracellular matrix deposition. *Cell Rep.* 40: 111091.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.