

Talin-1 (YQ-16): sc-81805

BACKGROUND

Focal adhesions were identified as areas within the plasma membrane of tissue culture cells that adhere tightly to the underlying substrate. *In vivo*, these regions are involved in the adhesion of cells to the extracellular matrix. Paxillin and vinculin are cytoskeletal, focal adhesion proteins that are components of a protein complex that links the Actin network to the plasma membrane. Vinculin binding sites have been identified on other cytoskeletal proteins, including Talin-1 and α -actinin. In addition, vinculin, Talin-1, Talin-2 and α -actinin each contain Actin binding sites. Expression of vinculin, Talin-1 and Talin-2 have been shown to be affected by the level of Actin expression. α -actinin has been shown to link Actin to integrins in the plasma membrane through interactions with the vinculin and Talin complex or by a direct interaction with integrin. Talin-2 is similar to Talin-1 but shows distinct patterns of expression and cannot compensate for the loss of Talin-1.

CHROMOSOMAL LOCATION

Genetic locus: TLN1 (human) mapping to 9p13.3; Tln1 (mouse) mapping to 4 B1.

SOURCE

Talin-1 (YQ-16) is a mouse monoclonal antibody raised against recombinant Talin-1 of human origin.

PRODUCT

Each vial contains 100 μ g IgG₃ kappa light chain 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

Talin-1 (YQ-16) is recommended for detection of Talin-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 Talin-1 siRNA (h): sc-36610, Talin-1 siRNA (m): sc-36611, Talin-1 shRNA Plasmid (h): sc-36610-SH, Talin-1 shRNA Plasmid (m): sc-36611-SH, Talin-1 shRNA (h) Lentiviral Particles: sc-36610-V and Talin-1 shRNA (m) Lentiviral Particles: sc-36611-V.

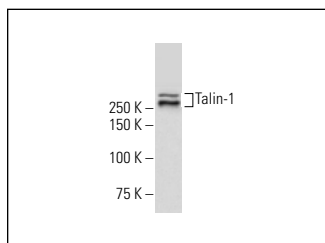
Molecular Weight of Talin-1: 230 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211.

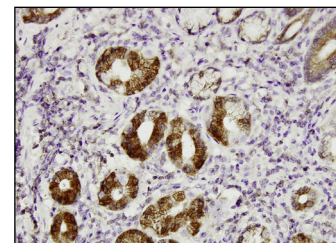
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Talin-1 (YQ-16): sc-81805. Western blot analysis of Talin-1 expression in Raw 264.7 whole cell lysate.



Talin-1 (YQ-16): sc-81805. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human stomach tissue showing membrane and cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Ah Kioon, M.D., et al. 2010. Adrenomedullin increases fibroblast-like synoviocyte adhesion to extracellular matrix proteins by upregulating integrin activation. *Arthritis Res. Ther.* 12: R190.
- Zhang, J.L., et al. 2011. Talin-1, a valuable marker for diagnosis and prognostic assessment of human hepatocellular carcinomas. *Asian Pac. J. Cancer Prev.* 12: 3265-3269.
- Gai, J.H., et al. 2011. Cell budding from pre-invasive tumors: intrinsic precursor of invasive breast lesions? *Exp. Ther. Med.* 2: 633-639.
- Rocchiccioli, S., et al. 2012. Proteomics changes in adhesion molecules: a driving force for vascular smooth muscle cell phenotypic switch. *Mol. Biosyst.* 8: 1052-1059.
- Krafft, U., et al. 2019. Validation of survivin and HMGA2 as biomarkers for cisplatin resistance in bladder cancer. *Urol. Oncol.* 37: 810-810.
- Haage, A., et al. 2020. Precise coordination of cell-ECM adhesion is essential for efficient melanoblast migration during development. *Development* 147: dev184234.



See **Talin (C-9): sc-365875** for Talin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.