

# TSPAN1 (B-9): sc-376551

## BACKGROUND

Tetraspanins are a group of hydrophobic membrane proteins that interact with a wide variety of proteins including intracellular signaling molecules, integrins and membrane receptors. Members of the tetraspanin family are characterized by the presence of four hydrophobic domains and play a role in cell development, activation, growth and motility. TSPAN1 (tetraspanin 1), also known as NET1, TM4C or TM4SF, is a 241 amino acid multi-pass membrane protein that localizes to the lysosome membrane. Overexpressed in many human cancers, TSPAN1 is suggested to play an important role in colon cancer progression and in gastric cancer cell migration and invasion. TSPAN1 may also be an important breast cancer suppressor gene. The gene encoding TSPAN1 is located on human chromosome 1p34.1. Chromosome 1 spans about 260 million base pairs, makes up 8% of the human genome and contains approximately 3,000 genes.

## CHROMOSOMAL LOCATION

Genetic locus: TSPAN1 (human) mapping to 1p34.1; Tspan1 (mouse) mapping to 4 D1.

## SOURCE

TSPAN1 (B-9) is a mouse monoclonal antibody raised against amino acids 150-241 mapping at the C-terminus of TSPAN1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TSPAN1 (B-9) is available conjugated to agarose (sc-376551 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376551 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376551 PE), fluorescein (sc-376551 FITC), Alexa Fluor® 488 (sc-376551 AF488), Alexa Fluor® 546 (sc-376551 AF546), Alexa Fluor® 594 (sc-376551 AF594) or Alexa Fluor® 647 (sc-376551 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376551 AF680) or Alexa Fluor® 790 (sc-376551 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

TSPAN1 (B-9) is recommended for detection of TSPAN1 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 TSPAN1 siRNA (h): sc-88332, TSPAN1 siRNA (m): sc-154723, TSPAN1 shRNA Plasmid (h): sc-88332-SH, TSPAN1 shRNA Plasmid (m): sc-154723-SH, TSPAN1 shRNA (h) Lentiviral Particles: sc-88332-V and TSPAN1 shRNA (m) Lentiviral Particles: sc-154723-V.

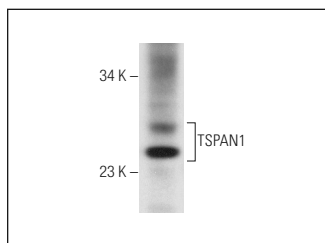
Molecular Weight of TSPAN1: 26 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206.

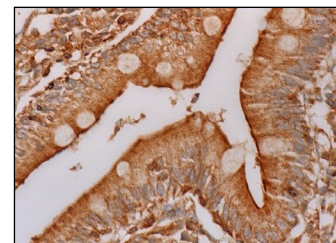
## RECOMMENDED SUPPORT REAGENTS

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



TSPAN1 (B-9): sc-376551. Western blot analysis of TSPAN1 expression in MCF7 whole cell lysate.



TSPAN1 (B-9): sc-376551. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic and apical membrane staining of glandular cells.

## SELECT PRODUCT CITATIONS

- Hou, F.Q., et al. 2015. Tetraspanin 1 is involved in survival, proliferation and carcinogenesis of pancreatic cancer. *Oncol. Rep.* 34: 3068-3076.
- Xu, F., et al. 2016. Decreased TSPAN1 promotes prostate cancer progression and is a marker for early biochemical recurrence after radical prostatectomy. *Oncotarget* 7: 63294-63305.
- Shin, H.Y., et al. 2021. Tetraspanin 1 promotes endometriosis leading to ovarian clear cell carcinoma. *Mol. Oncol.* 15: 987-1004.
- Ye, H., et al. 2021. TSPAN1, TMPRSS4, SDR16C5, and CTSE as novel panel for pancreatic cancer: a bioinformatics analysis and experiments validation. *Front. Immunol.* 12: 649551.

## 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](http://www.scbt.com) for detailed protocols and support products.

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