

TSPAN1 (H-92): sc-292055

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.

REFERENCES

1. Todd, S.C., et al. 1998. Sequences and expression of six new members of the tetraspanin/TM4SF family. *Biochim. Biophys. Acta* 1399: 101-104.
2. Chen, L., et al. 2008. Clinico-pathological significance of overexpression of TSPAN1, Ki67 and CD34 in gastric carcinoma. *Tumori* 94: 531-538.
3. Scholz, C.J., et al. 2009. Tspan-1 is a tetraspanin preferentially expressed by mucinous and endometrioid subtypes of human ovarian carcinomas. *Cancer Lett.* 275: 198-203.
4. Scholz, C.J., et al. 2009. Glycosylation of tetraspanin Tspan-1 at four distinct sites promotes its transition through the endoplasmic reticulum. *Protein Pept. Lett.* 16: 1244-1248.
5. Chen, L., et al. 2009. TSPAN1 protein expression: a significant prognostic indicator for patients with colorectal adenocarcinoma. *World J. Gastroenterol.* 15: 2270-2276.
6. Chen, L., et al. 2010. Clinicopathological significance of expression of Tspan-1, Jab1 and p27 in human hepatocellular carcinoma. *J. Korean Med. Sci.* 25: 1438-1442.
7. Chen, L., et al. 2010. Knockdown of TSPAN1 by RNA silencing and anti-sense technique inhibits proliferation and infiltration of human skin squamous carcinoma cells. *Tumori* 96: 289-295.
8. Chen, L., et al. 2010. Suppression of TSPAN1 by RNA interference inhibits proliferation and invasion of colon cancer cells *in vitro*. *Tumori* 96: 744-750.

CHROMOSOMAL LOCATION

Genetic locus: TSPAN1 (human) mapping to 1p34.1.

SOURCE

TSPAN1 (H-92) is a rabbit polyclonal antibody raised against amino acids 150-241 mapping at the C-terminus of TSPAN1 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

TSPAN1 (H-92) is recommended for detection of TSPAN1 of 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) 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 shRNA Plasmid (h): sc-88332-SH and TSPAN1 shRNA (h) Lentiviral Particles: sc-88332-V.

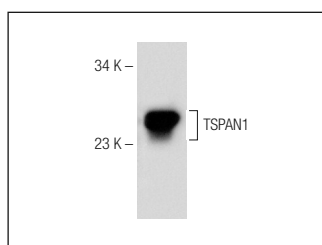
Molecular Weight of TSPAN1: 26 kDa.

Positive Controls: BT-20 cell lysate: sc-2223.

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



TSPAN1 (H-92): sc-292055. Western blot analysis of TSPAN1 expression in BT-20 whole cell lysate.

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 or our catalog for detailed protocols and support products.