

# TSPAN19 (D-15): sc-249110

## 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. TSPAN19 (tetraspanin-19) is a 248 amino acid multi-pass membrane protein belonging to the tetraspanin (TM4SF) family. The gene encoding TSPAN11 maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

## REFERENCES

1. Todd, S.C., Doctor, V.S. and Levy, S. 1998. Sequences and expression of six new members of the tetraspanin/TM4SF family. *Biochim. Biophys. Acta* 1399: 101-104.
2. Domínguez-Jiménez, C., Yáñez-Mó, M., Carreira, A., Tejedor, R., González-Amaro, R., Alvarez, V. and Sánchez-Madrid, F. 2001. Involvement of  $\alpha 3$  integrin/tetraspanin complexes in the angiogenic response induced by angiotensin II. *FASEB J.* 15: 1457-1459.
3. Berditchevski, F. 2001. Complexes of tetraspanins with integrins: more than meets the eye. *J. Cell. Sci.* 114: 4143-4151.
4. Yokoyama, T., Nakatani, S. and Murakami, A. 2003. A case of Kniest dysplasia with retinal detachment and the mutation analysis. *Am. J. Ophthalmol.* 136: 1186-1188.
5. Chen, L., Li, X., Wang, G.L., Wang, Y., Zhu, Y.Y. and Zhu, J. 2008. Clinico-pathological significance of overexpression of TSPAN1, Ki67 and CD34 in gastric carcinoma. *Tumori.* 94: 531-538.
6. Benussi, D.G., Costa, P., Zollino, M., Murdolo, M., Petix, V., Carrozzi, M. and Pecile, V. 2009. Trisomy 12p and monosomy 4p: phenotype-genotype correlation. *Genet. Test. Mol. Biomarkers* 13: 199-204.
7. Scholz, C.J., Kurzeder, C., Koretz, K., Windisch, J., Kreienberg, R., Sauer, G. and Deissler, H. 2009. Tspan-1 is a tetraspanin preferentially expressed by mucinous and endometrioid subtypes of human ovarian carcinomas. *Cancer Lett.* 275: 198-203.
8. Chen, L., Zhu, Y.Y., Zhang, X.J., Wang, G.L., Li, X.Y., He, S., Zhang, J.B. and Zhu, J.W. 2009. TSPAN1 protein expression: a significant prognostic indicator for patients with colorectal adenocarcinoma. *World J. Gastroenterol.* 15: 2270-2276.
9. Bennett, G., Sadlier, D., Doran, P.P., Macmathuna, P. and Murray, D.W. 2011. A functional and transcriptomic analysis of NET1 bioactivity in gastric cancer. *BMC Cancer* 11: 50.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## CHROMOSOMAL LOCATION

Genetic locus: TSPAN19 (human) mapping to 12q21.31.

## SOURCE

TSPAN19 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TSPAN19 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-249110 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TSPAN19 (D-15) is recommended for detection of TSPAN19 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other TSPAN family members.

Molecular Weight of TSPAN19: 28 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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) or our catalog for detailed protocols and support products.