

# TSLC1 (D-17): sc-25079

## BACKGROUND

Homologous to the poliovirus receptor (PVR/CD155), the Nectin immunoglobulin superfamily comprises four known isoforms, Nectin 1, 2, 3 and 4 (also designated TSLC1). TSLC1 is encoded by a tumor-suppressor gene in human non-small-cell lung cancer mapping to chromosome 11q23.3. The TSLC1 protein is an N-linked membrane glycoprotein that co-localizes with the Actin filament-binding protein, afadin, at cadherin-based adherens junctions in MDCKII epithelial cells. TSLC1 also interacts with the tumor-suppressor gene product DAL-1 (for differentially expressed in adenocarcinoma of the lung protein 1) to target Actin rearrangement and cellular motility. TSLC1 may also form homodimers that function in homophilic, intracellular adhesion. TSLC1 expression is reduced or absent in a number of characterized cancer cell lines including A549. In prostate and breast cancer, as well as in pancreatic ductal adenocarcinoma, the TSLC1 promoter is commonly silenced by hypermethylation. Unlike other Nectins, which are more widely expressed, TSLC1 is mainly expressed in the placenta.

## REFERENCES

1. Kuramochi, M., et al. 2001. TSLC1 is a tumor-suppressor gene in human non-small-cell lung cancer. *Nat. Genet.* 27: 427-430.
2. Reymond, N., et al. 2001. Nectin 4/PRRR4, a new afadin-associated member of the Nectin family that *trans*-interacts with Nectin 1/PRR1 through V domain interaction. *J. Biol. Chem.* 276: 43205-43215.
3. Allinen, M., et al. 2002. Analysis of 11q21-24 loss of heterozygosity candidate target genes in breast cancer: indications of TSLC1 promoter hypermethylation. *Genes Chromosomes Cancer* 34: 384-389.
4. Fukuhara, H., et al. 2002. Promoter methylation of TSLC1 and tumor suppression by its gene product in human prostate cancer. *Jpn. J. Cancer Res.* 93: 605-609.
5. Jansen, M., et al. 2002. Aberrant methylation of the 5' CpG island of TSLC1 is common in pancreatic ductal adenocarcinoma and is first manifest in high-grade PanINs. *Cancer Biol. Ther.* 1: 293-296.
6. Masuda, M., et al. 2002. The tumor suppressor protein TSLC1 is involved in cell-cell adhesion. *J. Biol. Chem.* 277: 31014-31019.
7. Mizoguchi, A., et al. 2002. Nectin: an adhesion molecule involved in formation of synapses. *J. Cell Biol.* 156: 555-565.
8. Yageta, M., et al. 2002. Direct association of TSLC1 and DAL-1, two distinct tumor suppressor proteins in lung cancer. *Cancer Res.* 62: 5129-5133.

## CHROMOSOMAL LOCATION

Genetic locus: CADM1 (human) mapping to 11q23.3.

## SOURCE

TSLC1 (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TSLC1 of human origin.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-25079 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TSLC1 (D-17) is recommended for detection of TSLC1 (tumor suppressor in lung cancer 1, also designated Nectin 4) 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).

TSLC1 (D-17) is also recommended for detection of TSLC1 (tumor suppressor in lung cancer 1, also designated Nectin 4) in additional species, including porcine.

Suitable for use as control antibody for TSLC1 siRNA (h): sc-37518, TSLC1 shRNA Plasmid (h): sc-37518-SH and TSLC1 shRNA (h) Lentiviral Particles: sc-37518-V.

Molecular Weight of TSLC1: 75 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.

## SELECT PRODUCT CITATIONS

1. Chen, K., et al. 2010. CADM1/TSLC1 inactivation by promoter hypermethylation is a frequent event in colorectal carcinogenesis and correlates with late stages of the disease. *Int. J. Cancer* 128: 266-273.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.