

# TEM1 (N-16): sc-48098



The Power to Question

## BACKGROUND

Tumor endothelial marker 1 (TEM1/Endosialin) is a heavily glycosylated, type I transmembrane C-type lectin-like receptor of the Ras superfamily expressed in the vascular endothelium and on fibroblast-like cells in developing organs. Expression of TEM1 largely disappears in adulthood. TEM1 is structurally related to thrombomodulin and complement receptor C1qRp. It consists of three EGF-like domains, a C-type lectin domain and a sushi domain. TEM1 is highly upregulated in tumor endothelium and is known to function in tumor growth and progression. For this reason TEM1 is a major target in anti-angiogenic tumor therapy. TEM1 may be responsible for concentrating liposomes on the surface of target cells and promoting their fusion with the cell membrane.

## REFERENCES

1. Carson-Walter, E.B., Watkins, D.N., Nanda, A., Vogelstein, B., Kinzler, K.W. and St Croix, B. 2001. Cell surface tumor endothelial markers are conserved in mice and humans. *Cancer Res.* 61: 6649-6655.
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4. Brady, J., Neal, J., Sadakar, N. and Gasque, P. 2004. Human endosialin (tumor endothelial marker 1) is abundantly expressed in highly malignant and invasive brain tumors. *J. Neuropathol. Exp. Neurol.* 63: 1274-1283.
5. MacFadyen, J.R., Haworth, O., Roberston, D., Hardie, D., Webster, M.T., Morris, H.R., Panico, M., Sutton-Smith, M., Dell, A., van der Geer, P., Wienke, D., Buckley, C.D. and Isacke, C.M. 2005. Endosialin (TEM1, CD248) is a marker of stromal fibroblasts and is not selectively expressed on tumour endothelium. *FEBS Lett.* 579: 2569-2575.

## CHROMOSOMAL LOCATION

Genetic locus: CD248 (human) mapping to 11q13.2; Cd248 (mouse) mapping to 19 A.

## SOURCE

TEM1 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TEM1 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.

Blocking peptide available for competition studies, sc-48098 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TEM1 (N-16) is recommended for detection of TEM1 of mouse and 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).

TEM1 (N-16) is also recommended for detection of TEM1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for TEM1 siRNA (h): sc-61659, TEM1 siRNA (m): sc-61660, TEM1 shRNA Plasmid (h): sc-61659-SH, TEM1 shRNA Plasmid (m): sc-61660-SH, TEM1 shRNA (h) Lentiviral Particles: sc-61659-V and TEM1 shRNA (m) Lentiviral Particles: sc-61660-V.

Molecular Weight of TEM1: 165 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. Carson-Walter, E.B., Winans, B.N., Whiteman, M.C., Liu, Y., Jarvela, S., Haapasalo, H., Tyler, B.M., Huso, D.L., Johnson, M.D. and Walter, K.A. 2009. Characterization of TEM1/Endosialin in human and murine brain tumors. *BMC Cancer* 9: 417.

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



Try **TEM1 (G-9): sc-377221**, our highly recommended monoclonal alternative to TEM1 (N-16).