

TEM1 (H-63): sc-134523

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., et al. 2001. Cell surface tumor endothelial markers are conserved in mice and humans. *Cancer Res.* 61: 6649-6655.
2. Christian, S., et al. 2001. Molecular cloning and characterization of endosialin, a C-type lectin-like cell surface receptor of tumor endothelium. *J. Biol. Chem.* 276: 7408-7414.
3. Opavsky, R., et al. 2001. Molecular characterization of the mouse Tem1/endosialin gene regulated by cell density *in vitro* and expressed in normal tissues *in vivo*. *J. Biol. Chem.* 276: 38795-38807.
4. Brady, J., et al. 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., et al. 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 (H-63) is a rabbit polyclonal antibody raised against amino acids 105-167 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.

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 or our catalog for detailed protocols and support products.

APPLICATIONS

TEM1 (H-63) is recommended for detection of TEM1 of mouse, rat and 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).

TEM1 (H-63) 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.

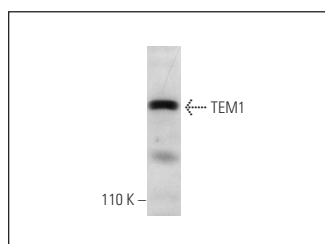
Molecular Weight of TEM1: 165 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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



TEM1 (H-63): sc-134523. Western blot analysis of TEM1 expression in HeLa whole cell lysate.

RESEARCH USE

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

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Try **TEM1 (G-9): sc-377221**, our highly recommended monoclonal alternative to TEM1 (H-63).