

TEM1 (G-9): sc-377221

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.

CHROMOSOMAL LOCATION

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

SOURCE

TEM1 (G-9) is a mouse monoclonal antibody raised against amino acids 105-167 mapping near the N-terminus of TEM1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TEM1 (G-9) is available conjugated to agarose (sc-377221 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377221 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377221 PE), fluorescein (sc-377221 FITC), Alexa Fluor® 488 (sc-377221 AF488), Alexa Fluor® 546 (sc-377221 AF546), Alexa Fluor® 594 (sc-377221 AF594) or Alexa Fluor® 647 (sc-377221 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377221 AF680) or Alexa Fluor® 790 (sc-377221 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

TEM1 (G-9) is recommended for detection of TEM1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 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.

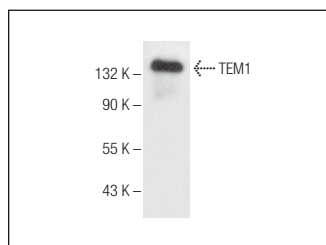
Molecular Weight of TEM1: 165 kDa.

Positive Controls: human smooth muscle extract: sc-363778 or IMR-32 cell lysate: sc-2409.

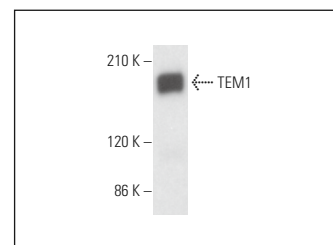
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



TEM1 (G-9): sc-377221. Western blot analysis of TEM1 expression in human smooth muscle tissue extract.



TEM1 (G-9): sc-377221. Western blot analysis of TEM1 expression in IMR-32 whole cell lysate. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

SELECT PRODUCT CITATIONS

- Yan, T., et al. 2017. Astaxanthin inhibits gemcitabine-resistant human pancreatic cancer progression through EMT inhibition and gemcitabine resensitization. *Oncol. Lett.* 14: 5400-5408.
- Zhang, Q., et al. 2019. Improved antitumor efficacy of combined vaccine based on the induced HUVECs and DC-CT26 against colorectal carcinoma. *Cells* 8: 494.
- Cheng, T.L., et al. 2021. Role of tumor endothelial marker 1 (Endosialin/CD248) lectin-like domain in lipopolysaccharide-induced macrophage activation and sepsis in mice. *Transl. Res.* 232: 150-162.
- Wei, Y., et al. 2021. The critical role of Hedgehog-responsive mesenchymal progenitors in meniscus development and injury repair. *Elife* 10: e62917.
- Li, J., et al. 2021. Single-cell RNA-sequencing reveals thoracolumbar vertebra heterogeneity and Rib-genesis in pigs. *Genomics Proteomics Bioinformatics* 19: 423-436.

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 for detailed protocols and support products.