SANTA CRUZ BIOTECHNOLOGY, INC.

TEM5 (H-103): sc-98871

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Tumor endothelial markers (TEMs) are abundantly expressed in the blood vessels of human solid tumors during angiogenesis and neoangiogensis. These include TEM1 (endosialin), TEM5 (G protein-coupled receptor 124) and TEM7 (plexin domain containing 1). TEMs are associated with the cell surface membrane at low levels in normal human and mouse tissues. TEM5 is a seven-pass transmembrane receptor, whereas TEM1, TEM7 and TEM8 span the membrane once. TEM5 expression is elevated during tumor angiogenesis and neoangiogenesis. TEM7 is highly expressed in tumor endothelium and neurons. Therefore, TEM5 and TEM7 may be suitable targets for the development of antiangiogenic therapies.

REFERENCES

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2. Yamamoto, Y., Irie, K., Asada, M., Mino, A., Mandai, K. and Takai, Y. 2004. Direct binding of the human homologue of the *Drosophila* disc large tumor suppressor gene to seven-pass transmembrane proteins, tumor endothelial marker 5 (TEM5), and a novel TEM5-like protein. Oncogene 23: 3889-3897.
3. Wang, X.Q., Sheibani, N. and Watson, J.C. 2005. Modulation of tumor endothelial cell marker 7 expression during endothelial cell capillary morphogenesis. Microvasc. Res. 70: 189-197.
4. Lee, H.K., Kang, D.S., Seo, I.A., Choi, E.J., Park, H.T. and Park, J.I. 2006. Expression of tumor endothelial marker 7 mRNA and protein in the dorsal root ganglion neurons of the rat. Neurosci Lett. 402: 71-75.
5. Lee, H.K., Seo, I.A., Park, H.K. and Park, H.T. 2006. Identification of the basement membrane protein nidogen as a candidate ligand for tumor endothelial marker 7 *in vitro* and *in vivo*. FEBS Lett. 580: 2253-2257.

CHROMOSOMAL LOCATION

Genetic locus: GPR124 (human) mapping to 8p11.23; Gpr124 (mouse) mapping to 8 A2.

SOURCE

TEM5 (H-103) is a rabbit polyclonal antibody raised against amino acids 396-498 mapping within an internal region of TEM5 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

TEM5 (H-103) is recommended for detection of TEM5 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).

TEM5 (H-103) is also recommended for detection of TEM5 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for TEM5 siRNA (h): sc-61661, TEM5 siRNA (m): sc-61662, TEM5 shRNA Plasmid (h): sc-61661-SH, TEM5 shRNA Plasmid (m): sc-61662-SH, TEM5 shRNA (h) Lentiviral Particles: sc-61661-V and TEM5 shRNA (m) Lentiviral Particles: sc-61662-V.

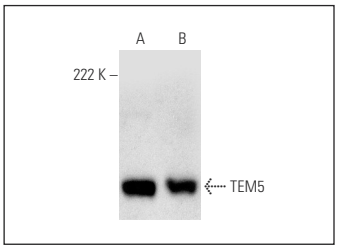
Molecular Weight of TEM5: 142 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or SK-OV-3 whole cell lysate: sc-364229.

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



TEM5 (H-103): sc-98871. Western blot analysis of TEM5 expression in HeLa (**A**) and SK-OV-3 (**B**) whole cell lysates.

RESEARCH USE

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