SANTA CRUZ BIOTECHNOLOGY, INC.

TEM5 (C-14): sc-47931

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.

SOURCE

TEM5 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus 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.

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

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.

APPLICATIONS

TEM5 (C-14) is recommended for detection of TEM5 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).

TEM5 (C-14) is also recommended for detection of TEM5 in additional species, including porcine.

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

Molecular Weight of TEM5: 142 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.