



Qty: 100 µg/400 µL

Rabbit anti-TEM7

Catalog No. 40-9100

Lot No.

Rabbit anti-TEM7

FORM

This polyclonal antibody is supplied as a 400 µL aliquot at a concentration of 0.25 mg/mL in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide. This antibody is affinity purified from rabbit antiserum.

PAD: ZMD.512

IMMUNOGEN

Synthetic peptide derived from the C-terminal region of the human TEM7 protein, which differs from dog by one conservative amino acid replacement

SPECIFICITY

This antibody is specific for human and mouse TEM7 (Tumor Endothelial Marker 7, plexin domain containing-1, PLXDC1), proteins. On Western blots, it identifies the target band at ~55 kDa.

REACTIVITY

Reactivity has been confirmed with HCT-116, Jurkat, and SV40-transformed mouse endothelial cell lysates. Based on amino acid sequence homology, reactivity with dog is expected.

Sample	Western Blotting
Human	+++
Mouse	+++
Dog	ND

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Western Blotting: 1–3 µg/mL

STORAGE

Store at 2–8°C for up to one month. Store at –20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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PI409100

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BACKGROUND

An emerging anticancer strategy is to inhibit angiogenesis, or the growth of new blood vessels into tumors. Targeting the endothelial cells of blood vessels may be widely applicable to many tumor types¹. Gene expression analysis of endothelial cells isolated from normal human colon tissue or from human colorectal cancers identified 46 transcripts, named tumor endothelial markers (TEM) that were significantly upregulated compared to with normal endothelium². TEMs that are expressed on the cell surface are of particular interest for future therapeutic approaches because these targets are accessible by the bloodstream.

TEM7, also known as plexin domain containing-1 (PLXDC1), contains a single transmembrane domain³. TEM7 is expressed in the endothelial cells of primary and metastatic colorectal, lung, pancreas, breast and brain tumors³. TEM7 also plays a role as a transmembrane receptor in some neuronal cells⁴. Recently, a novel leukocyte subset was described, which coexpresses endothelial cell markers (including TEM7) as well as dendritic cell markers and may provide a link between hematopoietic precursors and vascular development⁵. TEM7 expression on the surface of tumor cells may be an attractive target for developing antiangiogenic cancer therapies.

REFERENCES

1. Boehm T, et al. *Nature* 390:404-407, 1997.
2. St Croix B, et al. *Science* 289:1197-1202, 2000.
3. Carson-Walter EB, et al. *Cancer Res* 61:6649-6655, 2001.
4. Lee HK, et al. *Brain Res Mol Brain Res* 136:189-198, 2005.
5. Conejo-Garcia JR, et al. *Blood* 105:679-81, 2005.

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose [®] 4B	10-1041
rec-Protein G	Sepharose [®] 4B	10-1241

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