10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

TEM7 Antibody

Catalog # ASC10587

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q8IUK5
Other Accession	AAG00869, 14017379
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	55760
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TEM7 antibody can be used for detection of TEM7 by Western blot at 0.5 - 1 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	57125
Other Names	Plexin domain-containing protein 1, Tumor endothelial marker 3, Tumor endothelial marker 7, PLXDC1, TEM3, TEM7
Target/Specificity	PLXDC1;
Reconstitution & Storage	TEM7 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	TEM7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PLXDC1
Synonyms	TEM3, TEM7
Function	Plays a critical role in endothelial cell capillary morphogenesis.
Cellular Location	Secreted [Isoform 2]: Secreted. [Isoform 4]: Cytoplasm.
Tissue Location	Detected in urine (at protein level) (PubMed:25326458, PubMed:36213313, PubMed:37453717). Detected in endothelial cells from colorectal cancer, and in endothelial cells from primary cancers of the lung, liver, pancreas, breast

and brain. Not detectable in endothelial cells from normal tissue. Expressed in fibrovascular membrane with increased expression in individuals with proliferative diabetic retinopathy.

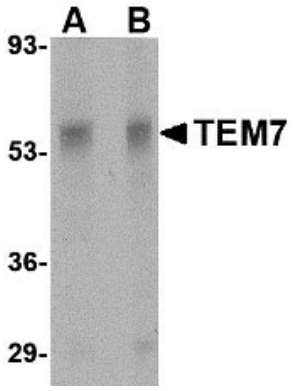
Background

TEM7 Antibody: Tumor endothelial marker 7 (TEM7) was identified through serial analysis of gene expression on endothelial cells isolated from human normal and malignant colorectal tissues. Further experiments verified TEM7 was highly expressed in the endothelium of numerous other cancer types including breast, lung and brain tumors. At least four isoforms of TEM7 are known to exist; these include intracellular, secreted, and membrane-bound forms. A homologous protein, TEM7R (also known as PLXDC2), acts as a binding partner to TEM7 and is also abundantly expressed in the endothelium of malignant colorectal cancer but is absent or rare in normal colon mucosa. High expression of TEM7 is associated with metastasis and poor survival of patients with osteogenic sarcoma.

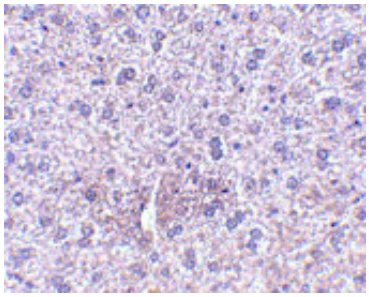
References

St. Croix B, Rago C, Velculescu V, et al. Genes expressed in human tumor endothelium. Science2000; 289:1197-202.
Nanda A, Buckhaults P, Seaman S, et al. Identification of a binding partner for the endothelial cell surface proteins TEM7 and TEM7R. Cancer Res.2004; 64:8507-11.
Carson-Weber EB, Watkins DN, Nanda A, et al. Cell surface tumor epithelial markers are conserved in mice and humans. Cancer Res.2001; 61:6649-55.
Fuchs B, Mahlum E, Halder C, et al. High expression of tumor endothelial marker 7 is associated with metastasis and poor survival of patients with osteogenic sarcoma. Gene2007; 399:137-43.

Images

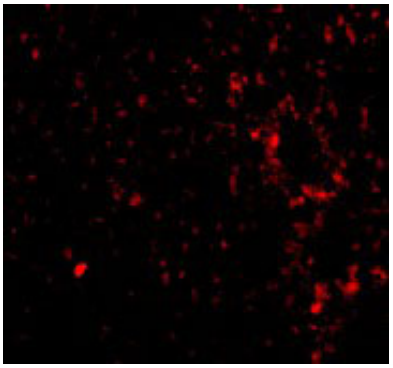


Western blot analysis of TEM7 in rat liver tissue lysate with TEM7 antibody at (A) 0.5 and (B) 1 µg/mL.



Immunohistochemistry of TEM7 in mouse liver tissue with TEM7 antibody at 2.5 µg/mL.

Immunofluorescence of TEM7 in Mouse Liver cells with TEM7 antibody at 20 µg/mL.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.