



## Anti- Tumor endothelial marker 5 (TEM5), rabbit Polyclonal Antibody

**Catalog No.** GB-30088  
**Antigen species:** Human  
**Host species:** Rabbit

**Quantity:** 100 µg  
**Reactivity:** Human  
**Form:** Peptide affinity purified antibody

**Applications tested:** ELISA

### Target description

Tumor endothelial markers (TEMs) display elevated expression during angiogenesis. Their associations with the cell surface membrane are of great interest for both biological and clinical research. TEM5 is encoded a seven-pass transmembrane protein of 1,331 amino acids and is most similar to the cadherin-related Celsr1 proteins and members of the calcium-independent  $\alpha$ -latrotoxin receptor family. TEM5 is likely to be a novel member of the class II GPCR (GPCR 124) involved in transmitting signals across the cell membrane, but the signaling partners of TEM5 remain to be determined. GPCRs have been excellent drug targets because their natural ligands can often mimicked for agonistic or antagonistic purpose. The existence of tumor-specific endothelial markers provides a resource for further understanding the mechanisms of tumor angiogenesis and encourages the development of antiangiogenic therapies in the future.

### Antigen

This polyclonal antibody was raised by immunizing rabbit with a synthetic peptide containing amino acids on the putative extracellular domain of human TEM5.

### Application

The antibody titer is more than 100K for ELISA. It has not been tested in the other applications. However, for the first testing, we recommend 1/5,000 dilution for ELISA, 1/1000 dilution for Western blot analysis (WB) of recombinant protein, 1/400 dilution for tissue extracts or cell lysates, 1/100 dilution for immunohistochemistry (IHC) staining on frozen cryosections, 1/50 dilution for IHC staining on paraffin embedded sections.

### Related Products

1. Anti-TEM1 pAb (GB-10374).
2. Anti-TEM2 pAb (GB-30131)
3. Anti-TEM3 pAb (GB-30132).
4. Anti-TEM4 pAb (GB-30133)
5. Anti-TEM5 pAb (GB-10011).
6. Anti-TEM5 pAb (GB-30028).
7. Anti-TEM8 pAb (GB-10344).
8. Anti-TEM8 pAb (GB-10009).

Ab dilution	Pre-bleed	Purified-Ab
1:0.1K	1.086	1.874
1:1K	0.182	1.678
1:10K	0.098	0.902
1:100K	0.059	0.233
1:1,000K	0.057	0.106
Titer		~606K

### ELISA Protocol

Antigen is coated on EIA strips at 1µg per well. Add 200µl of blocking buffer and then wash wells with PBST buffer. Antiserum or peptide specific purified antibody GB-30088 is diluted in series as  $10^2 \sim 10^6$  folds and added in separate wells. Incubate antibody for 1hr. Wash unbound antibodies and add anti-rabbit IgG-HRP conjugate. Wash the plates and add substrate to develop color for 5 min. Read absorbance (ABS) at 650 nm. Amount of color is directly proportional to the amount of antibodies. Antibody titer is defined as  $>0.1$  of ABS of antiserum minus pre-bleed serum.

### Storage

It is supplied as peptide affinity purified antibody in lyophilized powder. Redissolve the powder with 100 microliter sterile water will restore to the original concentration 1mg/ml (1xPBS). Store at 4°C for short-term application. For long-term storage, aliquot and store at -20°C.

### References

1. St.Croix B, Rago C, Velculescu V, Traverso G, Romans KE, Montgomery E, Lal A, Riggins GJ, Lengauer C, Vogelstein B and Kinzler KW. Genes expressed in human tumor endothelium. *Science* 289 (5482), 1197-1202 (2000) GENESIS CITATION.
2. Crson-Walter, E. B.; Watkins, D. N.; Nanda, A.; Vogelstein, B.; Kinzler, K. W.; St. Croix, B. Cell surface tumor endothelial markers are conserved in mice and humans. *Cancer Res.* 61: 6649-6655 (2001).
3. St. Croix, B.; Rago, C.; Velculescu, V.; Traverso, G.; Romans, K. E.; Montgomery, E.; Lal, A.; Riggins, G. J.; Lengauer, C.; Vogelstein, B.; Kinzler, K. W. Genes expressed in human tumor endothelium. *Science* 289: 1197-1202(2000).

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