

# Tie2 (D9D10) Rabbit mAb



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**For Research Use Only. Not For Use In Diagnostic Procedures.**

Applications W Endogenous	Species Cross-Reactivity* H	Molecular Wt. 160 kDa	Isotype Rabbit IgG**
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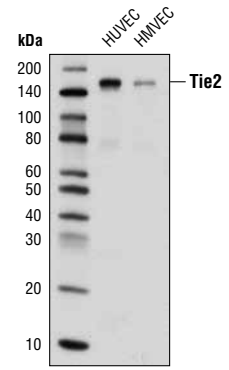
**Background:** Tie2/Tek is a receptor tyrosine kinase (RTK) expressed almost exclusively on endothelial cells. It is critical for vasculogenesis and could be important for maintaining endothelial cell survival and integrity in adult blood vessels as well as tumor angiogenesis (1-3). A family of ligands known as the angiopoietins binds to Tie2. Interestingly, these ligands appear to have opposing actions; Angiopoietin-1 (Ang1) and Angiopoietin-4 (Ang4) stimulate tyrosine phosphorylation of Tie2; Angiopoietin-2 (Ang2) and Angiopoietin-3 (Ang3) can inhibit this phosphorylation (4,5). Downstream signaling components, including Grb2, Grb7, Grb14, SHP-2, the p85 subunit of phosphatidylinositol 3-kinase, and p56/Dok-2 interact with Tie2 in a phosphotyrosine-dependent manner through their SH2 or PTB domains (6,7). Tyr992 is located on the putative activation loop of Tie2 and is a major autophosphorylation site (8).

**Specificity/Sensitivity:** Tie2 (D9D10) Rabbit mAb recognizes endogenous levels of total Tie2 protein.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg580 of human Tie2 protein.

**Background References:**

- (1) Ward, N.L. and Dumont, D.J. (2002) *Semin. Cell Dev. Biol.* 13, 19-27.
- (2) Jones, N. and Dumont, D.J. (2000) *Cancer Metastasis Rev.* 19, 13-17.
- (3) Partanen, J. and Dumont, D.J. (1999) *Curr. Top. Microbiol. Immunol.* 237, 159-172.
- (4) Ellis, L. M. et al. (2002) *Oncology* 16, 31-35.
- (5) Koh, G. Y. et al. (2002) *Exp. Mol. Med.* 34, 1-11.
- (6) Jones, N. et al. (1999) *J. Biol. Chem.* 274, 30896-30905.
- (7) Jones, N. et al. (2003) *Mol. Cell. Biol.* 23, 2658-2668.
- (8) Murray, B. W. et al. (2001) *Biochem.* 40, 10243-10253.



Western blot analysis of extracts from HUVEC and HMVEC cells using Tie2 (D9D10) Rabbit mAb.

Entrez-Gene ID #7010  
Swiss-Prot Acc. #Q02763

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**\*Species cross-reactivity is determined by western blot.**  
**\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**  
Western blotting 1:1000

**For application specific protocols please see the web page for this product at www.cellsignal.com.**

**Please visit www.cellsignal.com for a complete listing of recommended companion products.**

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**