

Tie-2 (H-176): sc-9026

BACKGROUND

Receptor tyrosine kinases play key roles in signal transduction across cell surfaces in biological systems, including the vascular system. These receptors comprise a large and diverse family of catalytically related proteins that, on the basis of sequence and structural similarities, can be divided into several different evolutionary subfamilies. The cloning and characterization of Tie, a novel human endothelial cell surface receptor tyrosine kinase, has been reported. The extracellular domain of the predicted Tie protein product has an unusual multidomain structure consisting of a cluster of three epidermal growth factor homology motifs localized between two immunoglobulin-like loops, which are followed by three fibronectin type III repeats next to the transmembrane region. An additional member of this family has been identified as Tie-2 (also designated Tek). Tie-1 and Tie-2 have been shown to be encoded by distinct genes and to represent members of a new class of receptor tyrosine kinases.

CHROMOSOMAL LOCATION

Genetic locus: TEK (human) mapping to 9p21.2; Tek (mouse) mapping to 4 C5.

SOURCE

Tie-2 (H-176) is a rabbit polyclonal antibody raised against amino acids 25-200 of Tie-2 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.

APPLICATIONS

Tie-2 (H-176) is recommended for detection of Tie-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Tie-2 (H-176) is also recommended for detection of Tie-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Tie-2 siRNA (h): sc-36677, Tie-2 siRNA (m): sc-36678, Tie-2 shRNA Plasmid (h): sc-36677-SH, Tie-2 shRNA Plasmid (m): sc-36678-SH, Tie-2 shRNA (h) Lentiviral Particles: sc-36677-V and Tie-2 shRNA (m) Lentiviral Particles: sc-36678-V.

Molecular Weight of Tie-2: 140 kDa.

Positive Controls: HUV-EC-C whole cell lysate: sc-364180 or ECV304 cell lysate: sc-2269.

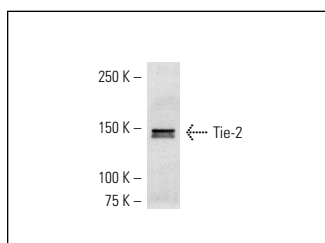
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

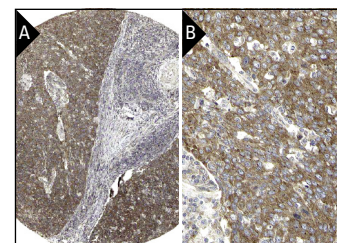
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Tie-2 (H-176): sc-9026. Western blot analysis of Tie-2 expression in ECV304 whole cell lysate.



Tie-2 (H-176): sc-9026. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cervical cancer tissue showing cytoplasmic staining of tumor cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

- Nykanen, A.I., et al. 2003. Angiopoietin-1 protects against the development of cardiac allograft arteriosclerosis. *Circulation* 107: 1308-1314.
- Arsic, N., et al. 2003. Induction of functional neovascularization by combined VEGF and angiopoietin-1 gene transfer using AAV vectors. *Mol. Ther.* 7: 450-459.
- Straume, O., et al. 2003. Increased expression of VEGF-receptors (FLT-1, KDR, NRP-1) and thrombospondin-1 is associated with glomeruloid microvascular proliferation, an aggressive angiogenic phenotype, in malignant melanoma. *Angiogenesis* 6: 295-301.
- Scotti, L., et al. 2011. Administration of a gonadotropin-releasing hormone agonist affects corpus luteum vascular stability and development and induces luteal apoptosis in a rat model of ovarian hyperstimulation syndrome. *Mol. Cell. Endocrinol.* 335: 116-125.
- Andersen, S., et al. 2011. Prognostic impacts of angiopoietins in NSCLC tumor cells and stroma: VEGF-A impact is strongly associated with Ang-2. *PLoS ONE* 6: e19773.
- Abramovich, D., et al. 2012. Angiopoietins/TIE2 system and VEGF are involved in ovarian function in a DHEA rat model of polycystic ovary syndrome. *Endocrinology* 153: 3446-3456.
- Scotti, L., et al. 2013. Involvement of the ANGPTs/Tie-2 system in ovarian hyperstimulation syndrome (OHSS). *Mol. Cell. Endocrinol.* 365: 223-230.



Try **Tie-2 (3A5): sc-293414**, our highly recommended monoclonal alternative to Tie-2 (H-176).