SANTA CRUZ BIOTECHNOLOGY, INC.

Tie-1 (H-180): sc-9025

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. Recently, the cloning and characterization of Tie, a novel human endothelial cell surface receptor tyrosine kinase, was 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, designated Tek, has more recently been identified. Tek and Tie-1 have been shown to be encoded by distinct genes and to represent members of a new class of receptor tyrosine kinases while Tek and Tie-2 probably represent independent isolaters of the same gene.

CHROMOSOMAL LOCATION

Genetic locus: TIE1 (human) mapping to 1p34.2; Tie1 (mouse) mapping to 4 D2.1.

SOURCE

Tie-1 (H-180) is a rabbit polyclonal antibody raised against amino acids 25-204 of Tie-1 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.

STORAGE

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

APPLICATIONS

Tie-1 (H-180) is recommended for detection of Tie-1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Tie-1 (H-180) is also recommended for detection of Tie-1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Tie-1 siRNA (h): sc-36675, Tie-1 siRNA (m): sc-36676, Tie-1 shRNA Plasmid (h): sc-36675-SH, Tie-1 shRNA Plasmid (m): sc-36676-SH, Tie-1 shRNA (h) Lentiviral Particles: sc-36675-V and Tie-1 shRNA (m) Lentiviral Particles: sc-36676-V.

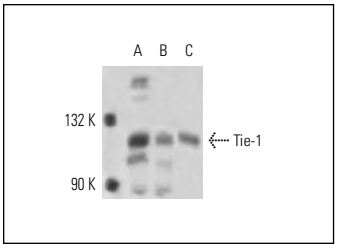
Molecular Weight of Tie-1: 110 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, K-562 whole cell lysate: sc-2203 or ECV304 cell lysate: sc-2269.

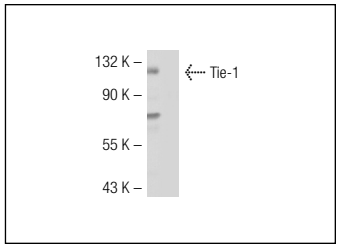
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Tie-1 (H-180): sc-9025. Western blot analysis of Tie-1 expression in PMA-induced K-562 (**A**), PMA-induced HL-60 (**B**) and ECV304 (**C**) whole cell lysates.



Tie-1 (H-180): sc-9025. Western blot analysis of Tie-1 expression in K-562 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Barajas, M., et al. 2007. Multipotent Adult Progenitor Cells (MAPC) contribute to hepatocarcinoma neovasculature. Biochem. Biophys. Res. Commun. 364: 92-99.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.