SANTA CRUZ BIOTECHNOLOGY, INC.

Ang-1/4 (C-19): sc-9360

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Angiopoietin-1 (Ang-1) is a secreted ligand for Tie-2, a cell surface receptor tyrosine kinase expressed in endothelial and hemopoietic cells. Ang-1 is glycosylated and has a Fibrinogen-like domain at the carboxy-terminus and coiled-coil regions in the amino-terminus. Ang-1 is an angiogenic factor that mediates blood vessel maturation and may be involved in endothelial development. A related protein, angiopoietin-2 (Ang-2), is a naturally occurring antagonist of Ang-1 activation of Tie-2. In adult tissue, Ang-2 expression is restricted to sites of vascular remodeling. Ang-1 and Ang-2 are expressed in human malignant glioma. Ang-3 is a secretory protein expressed in adult human adrenal gland, placenta, lung, cultured human umbilical vein endothelial cells, thyroid gland, heart and small intestine. It acts as an antagonist. Ang-4 is expressed in heart and acts as an agonist.

CHROMOSOMAL LOCATION

Genetic locus: ANGPT1 (human) mapping to 8q23.1, ANGPT4 (human) mapping to 20p13; Angpt1 (mouse) mapping to 15 B3.1, Angpt4 (mouse) mapping to 2 G3.

SOURCE

Ang-1/4 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of the mature chain of Ang-4 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.

Blocking peptide available for competition studies, sc-9360 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ang-1/4 (C-19) is recommended for detection of Ang-1 of mouse, rat and human origin and Ang-4 of human and, to a lesser extent, mouse and rat 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).

Suitable for use as control antibody for Ang-1/4 siRNA (h): sc-43614, Ang-1/4 shRNA Plasmid (h): sc-43614-SH and Ang-1/4 shRNA (h) Lentiviral Particles: sc-43614-V.

Molecular Weight of Ang-1/4: 60 kDa.

Positive Controls: ECV304 cell lysate: sc-2269, Hel 92.1.7 cell lysate: sc-2270 or HeLa whole cell lysate: sc-2200.

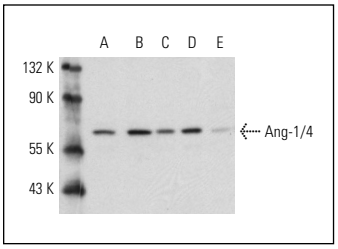
STORAGE

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



Ang-1/4 (C-19): sc-9360. Western blot analysis of Ang-1/4 expression in ECV304 (**A**), HEL 92.1.7 (**B**), HeLa (**C**), HeLa + TNFα (**D**) and LADMAC (**E**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Penkowa, M., et al. 2003. Metallothionein-I overexpression alters brain inflammation and stimulates brain repair in transgenic mice with astrocyte-targeted interleukin-6 expression. Glia 42: 287-306.
2. Penkowa, M., et al. 2003. Astrocyte-targeted expression of interleukin-6 protects the central nervous system during neuroglial degeneration induced by 6-aminonicotinamide. J. Neurosci. Res. 73: 481-496.
3. Hirchenhain, J., et al. 2003. Differential expression of angiopoietins 1 and 2 and their receptor Tie-2 in human endometrium. Mol. Hum. Reprod. 9: 663-669.
4. 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.
5. 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.
6. Scotti, L., et al. 2013. Involvement of the ANGPTs/Tie-2 system in ovarian hyperstimulation syndrome (OHSS). Mol. Cell. Endocrinol. 365: 223-230.

PROTOCOLS

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