



ANG I (T-20): sc-20866

BACKGROUND

Angiogenesis is defined as the process of neovascularization and formation of new blood vessels from the established micro-circulation. Angiogenin, or ANG, is a 14 kDa non-glycosylated polypeptide, 123 amino acids in length, whose function is central to this process. Angiogenin shows a high degree of homology with known ribonucleases such as pancreatic ribonuclease A, and the capacity of angiogenin to induce blood vessel growth is critically dependent on its ribonucleolytic activity. Angiogenin is thought to be involved in the development of solid tumors, and angiogenin antagonists are capable of inhibiting tumor growth. By a poorly understood mechanism, angiogenin is endocytosed by subconfluent endothelial cells and translocated to the nucleus where it accumulates in the nucleolus. The angiogenin receptor has not yet been identified.

REFERENCES

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4. Hu, G., et al. 1994. Angiogenin promotes invasiveness of cultured endothelial cells by stimulation of cell-associated proteolytic activities. *Proc. Natl. Acad. Sci. USA* 91: 12096-12100.
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8. Acharya, K.R., et al. 1995. Crystal structure of bovine angiogenin at 1.5-Å resolution. *Proc. Natl. Acad. Sci. USA* 92: 2949-2953.
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CHROMOSOMAL LOCATION

Genetic locus: ANG (human) mapping to 14q11.1-q11.2; Ang1 (mouse) mapping to 14 B-C1.

SOURCE

ANG I (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ANG I of human origin.

STORAGE

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

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-20866 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ANG I (T-20) is recommended for detection of precursor and mature ANG I, ANG III, ANG IV, RNase 1 and AGRP of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Molecular Weight of ANG I: 14 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.