SANTA CRUZ BIOTECHNOLOGY, INC.

ANG I (h): CHO Lysate: sc-110020

BACKGROUND

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

REFERENCES

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3. Diaz-Flores, L., et al. 1994. Angiogenesis: an update. Histol. Histopathol. 9: 807-843.
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.
5. Reisdorf, C., et al. 1994. Proton resonance assignments and secondary structure of bovine angiogenin. Eur. J. Biochem. 224: 811-822.
6. Moroianu, J., et al. 1994. Identification of the nucleolar targeting signal of human angiogenin. Biochem. Biophys. Res. Commun. 203: 1765-1772.
7. Olson, K.A., et al. 1995. Angiogenin antagonists prevent tumor growth *in vivo*. Proc. Natl. Acad. Sci. USA 92: 442-446.
8. Cockerill, G.W., et al. 1995. Angiogenesis: models and modulators. Int. Rev. Cytol. 159: 113-160.
9. Acharya, K.R., et al. 1995. Crystal structure of bovine angiogenin at 1.5-A resolution. Proc. Natl. Acad. Sci. USA 92: 2949-2953.

CHROMOSOMAL LOCATION

Genetic locus: ANG (human) mapping to 14q11.2.

PRODUCT

ANG I (h): CHO Lysate represents a lysate of human ANG I transfected CHO cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

ANG I (h): CHO Lysate is suitable as a Western Blotting positive control for human reactive ANG I antibodies. Recommended use: 10-20 µl per lane.

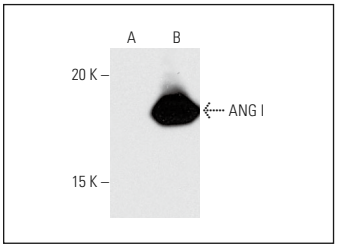
Control CHO Lysate: sc-117750 is available as a Western Blotting negative control lysate derived from non-tranfected CHO cells.

ANG I (C-1): sc-74528 is recommended as a positive control antibody for Western Blot analysis of enhanced human ANG I expression in ANG I transfected CHO cells (starting dilution 1:100, dilution range 1:100-1:1,000).

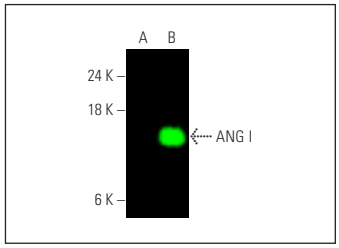
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



ANG I (C-1): sc-74528. Western blot analysis of ANG I expression in non-transfected: sc-117750 (**A**) and human ANG I transfected: sc-110020 (**B**) CHO whole cell lysates.



ANG I (C-1): sc-74528. Near-infrared western blot analysis of ANG I expression in non-transfected: sc-117750 (**A**) and human ANG I transfected: sc-110020 (**B**) CHO whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

PROTOCOLS

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