## BACKGROUND

RNH1, the placental ribonuclease (RNase) inhibitor, is an acidic 460-amino acid protein which contains an unusually high content of leucine and cysteine residues. It is a member of a family of proteinaceous cytoplasmic RNase inhibitors that are expressed in many tissues and bind to both intracellular and extracellular RNases in the cytosol. RNH1 binds to a diverse variety of mammalian RNases and holds them in a latent form. It is also important in the control of mRNA turnover. RNH1inhibits angiogenesis by reversibly binding angiogenin, a member of the RNaseA superfamily. Because angiogenesis is necessary for the growth and metastasis of tumors, RNH1 may play an important role in cancer gene therapy.

## REFERENCES

1. Zhang, B., et al. 2002. Antitumor effect through human endostatin gene transfer in mice bearing B16 melanoma. Zhonghua Zhong Liu Za Zhi 24: 451-454.
2. Online Mendelian Inheritance in Man, OMIM ${ }^{\text {TM }}$. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 173320. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

## CHROMOSOMAL LOCATION

Genetic locus: Rnh1 (mouse) mapping to 7 F5.

## SOURCE

RNH1 (M-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of RNH1 of mouse origin.

## PRODUCT

Each vial contains $200 \mu \mathrm{gg} \lg$ in 1.0 ml of PBS with $<0.1 \%$ sodium azide and $0.1 \%$ gelatin.

Blocking peptide available for competition studies, sc-49701 P, (100 $\mu \mathrm{g}$ peptide in 0.5 ml PBS containing $<0.1 \%$ sodium azide and $0.2 \% \mathrm{BSA}$ ).

## APPLICATIONS

RNH1 ( $\mathrm{M}-14$ ) is recommended for detection of RNH1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 $\mu \mathrm{g}$ per 100-500 $\mu \mathrm{g}$ 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 RNH1 siRNA (h): sc-61365, RNH1 siRNA (m): sc-61366, RNH1 shRNA Plasmid (h): sc-61365-SH, RNH1 shRNA Plasmid (m): sc-61366-SH, RNH1 shRNA (h) Lentiviral Particles: sc-61365-V and RNH1 shRNA (m) Lentiviral Particles: sc-61366-V.
Molecular Weight of RNH1: 50 kDa .
Positive Controls: NIH/3T3 whole cell lysate: sc-2210, 3T3-L1 cell lysate: sc-2243 or c6 cell lysate.

## 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 MarkerTM 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 ( 0.5 ml agarose/2.0 ml). 3) 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 ${ }^{\text {™ }}$ Mounting Medium: sc-24941.

## DATA



RNH1 (M-14): sc-49701. Western blot analysis of TFIIIC63 expression in non-transfected 293T sc-117752 (A), mouse TFIIIC63 transfected 293T: sc-127647 (B) and C6 (C) whole cell lysates.


RNH1 (M-14): sc-49701. Western blot analysis of RNH1 expression in non-transfected: sc-117752 (A) and human RNH1 transfected: sc-113561 (B) 293T whole cell lysates.

## STORAGE

Store at $4^{\circ} \mathrm{C},{ }^{* *}$ 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.

## PROTOCOLS

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


Try RNH1 (A-9): sc-365783 or RNH1 (C-10):
sc-271725, our highly recommended monoclonal alternatives to RNH1 (M-14).

