

RNase L (H-300): sc-25798

BACKGROUND

RNase L encodes a component of the interferon-regulated 2-5A system that functions in the antiviral and antiproliferative roles of interferons. Mutations in this gene have been associated with predisposition to prostate cancer and this gene is a candidate for the hereditary prostate cancer 1 (HPC-1) allele. Interferon treatment enhances levels of both RNase L and a group of synthetases that produce 5'-triphosphorylated, 2',5'-oligoadenylates (2-5A) from ATP. The role of the 2-5A system in the control of viral and cellular growth suggests that defects in the 2-5A-dependent RNase gene could result in reduced immunity to viral infections and cancer.

REFERENCES

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3. Demetree, E., et al. 2002. Ribonuclease L proteolysis in peripheral blood mononuclear cells of chronic fatigue syndrome patients. *J. Biol. Chem.* 277: 35746-35751.
4. ten Asbroek, A., et al. 2002. Ribonuclease H1 maps to chromosome 2 and has at least three pseudogene loci in the human genome. *Genomics* 79: 818-23.
5. Nakazato, H., et al. 2003. Role of genetic polymorphisms of the RNase L gene on familial prostate cancer risk in a Japanese population. *Br. J. Cancer* 89: 691-696.
6. Silverman, R.H. 2003. Implications for RNase L in prostate cancer biology. *Biochemistry* 42: 1805-1812.
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8. SWISS-PROT/TrEMBL (O60930). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: RNASEL (human) mapping to 1q25.3; Rnasel (mouse) mapping to 1 G2.

SOURCE

RNase L (H-300) is a rabbit polyclonal antibody raised against amino acids 442-741 mapping at the C-terminus of RNase L 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

RNase L (H-300) is recommended for detection of RNase L 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 RNase L siRNA (h): sc-45965, RNase L siRNA (m): sc-45966, RNase L shRNA Plasmid (h): sc-45965-SH, RNase L shRNA Plasmid (m): sc-45966-SH, RNase L shRNA (h) Lentiviral Particles: sc-45965-V and RNase L shRNA (m) Lentiviral Particles: sc-45966-V.

Molecular Weight of native RNase L: 83 kDa.

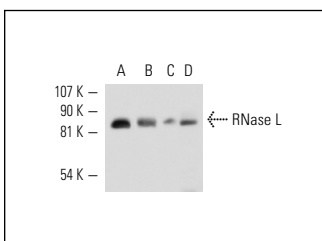
Molecular Weight of truncated RNase L: 37 kDa.

Positive Controls: PC-3 nuclear extract: sc-2152, DU 145 nuclear extract: sc-24960 or F9 cell lysate: sc-2245.

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) 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™ Mounting Medium: sc-24941.

DATA



RNase L (H-300): sc-25798. Western blot analysis of RNase L expression of PC-3 (A) and DU 145 (B) nuclear extracts and F9 (C) and T98G (D) whole cell lysates.

RESEARCH USE

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

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Try **RNase L (E-9): sc-74405** or **RNase L (2E9.2G5): sc-23955**, our highly recommended monoclonal alternatives to RNase L (H-300).