

RNase H1 (C-18): sc-30319

BACKGROUND

The human RNase H1 enzyme is a cytoplasmic endonuclease that degrades the RNA of RNA-DNA hybrids resulting in 5'-phosphomonoester products. Human RNase H1 cleaves RNA exclusively in an RNA/DNA duplex; neither double-strand DNA nor double-strand RNA is a viable substrate. Mn^{2+} and N-ethylmaleimide can inhibit Mg^{2+} -dependent RNase H1 activity. The RNase H1 gene is present at similar levels in all human cells and tissues, indicating that RNase H1 may be a housekeeping protein. The human RNase H1 gene maps to chromosome 2p25.3 with pseudogenes present on chromosome 17p11.2 and chromosome 1q.

REFERENCES

1. Wu, H., et al. 1998. Molecular cloning and expression of cDNA for human RNase H. *Antisense Nucleic Acid Drug Dev.* 8: 53-61.
2. Cerritelli, S., et al. 1998. Cloning, expression, and mapping of ribonucleases H of human and mouse related to bacterial RNase H1. *Genomics* 53: 300-307.

CHROMOSOMAL LOCATION

Genetic locus: RNASEH1 (human) mapping to 2p25.3; Rnaseh1 (mouse) mapping to 12 A2.

SOURCE

RNase H1 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of RNase H1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-30319 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RNase H1 (C-18) is recommended for detection of RNase H1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

RNase H1 (C-18) is also recommended for detection of RNase H1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RNase H1 siRNA (h): sc-106515, RNase H1 siRNA (m): sc-152994, RNase H1 shRNA Plasmid (h): sc-106515-SH, RNase H1 shRNA Plasmid (m): sc-152994-SH, RNase H1 shRNA (h) Lentiviral Particles: sc-106515-V and RNase H1 shRNA (m) Lentiviral Particles: sc-152994-V.

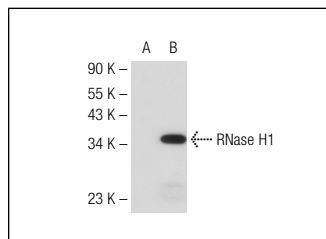
Molecular Weight of RNase H1: 32-35 kDa.

Positive Controls: RNase H1 (m): 293T Lysate: sc-123223, Caki-1 cell lysate: sc-2224 or HeLa whole cell lysate: sc-2200.

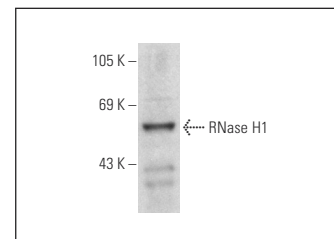
RECOMMENDED SECONDARY REAGENTS

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 H1 (C-18): sc-30319. Western blot analysis of RNase H1 expression in non-transfected: sc-117752 (A) and mouse RNase H1 transfected: sc-123223 (B) 293T whole cell lysates.



RNase H1 (C-18): sc-30319. Western blot analysis of RNase H1 expression in Caki-1 whole cell lysate.

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.

PROTOCOLS

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



Try **RNase H1 (H-4): sc-376326** or **RNase H1 (D-3): sc-393802**, our highly recommended monoclonal alternatives to RNase H1 (C-18).