

RNase 2 (C-13): sc-165366

BACKGROUND

RNase 2 [ribonuclease, RNase A family, 2 (liver, eosinophil-derived neurotoxin)], also known as non-secretory ribonuclease, EDN (eosinophil-derived neurotoxin), RNase Upl-2 or RNS2, is a 161 amino acid protein that belongs to the pancreatic ribonuclease family. Localizing to lysosome and cytoplasmic granules, RNase 2 is expressed in leukocytes, liver, spleen, lung and body fluids. RNase 2 functions as a pyrimidine specific nuclease, and has a slight preference for uracil. RNase 2 is capable of various biological activities, including mediation of chemotactic activity and endonucleolytic cleavage of nucleoside 3'-phosphates and 3'-phosphooligonucleotides. The gene encoding RNase 2 maps to human chromosome 14q11.2.

REFERENCES

1. Yasuda, T., Sato, W., Mizuta, K. and Kishi, K. 1988. Genetic polymorphism of human serum ribonuclease I (RNase I). *Am. J. Hum. Genet.* 42: 608-614.
2. Rosenberg, H.F., Tenen, D.G. and Ackerman, S.J. 1989. Molecular cloning of the human eosinophil-derived neurotoxin: a member of the ribonuclease gene family. *Proc. Natl. Acad. Sci. USA* 86(12): 4460-4464. PMID: 2734298
3. Hamann, K.J., Ten, R.M., Loegering, D.A., Jenkins, R.B., Heise, M.T., Schad, C.R., Pease, L.R., Gleich, G.J. and Barker, R.L. 1990. Structure and chromosome localization of the human eosinophil-derived neurotoxin and eosinophil cationic protein genes: evidence for intronless coding sequences in the ribonuclease gene superfamily. *Genomics* 7: 535-546.
4. Mastrianni, D.M., Eddy, R.L., Rosenberg, H.F., Corrette, S.E., Shows, T.B., Tenen, D.G. and Ackerman, S.J. 1992. Localization of the human eosinophil Charcot-Leyden crystal protein (lysophospholipase) gene (CLC) to chromosome 19 and the human ribonuclease 2 (eosinophil-derived neurotoxin) and ribonuclease 3 (eosinophil cationic protein) genes (RNS2 and RNS3) to chromosome 14. *Genomics* 13: 240-242.
5. Zhang, J., Dyer, K.D. and Rosenberg, H.F. 2002. RNase 8, a novel RNase A superfamily ribonuclease expressed uniquely in placenta. *Nucleic Acids Res.* 30: 1169-1175.
6. Benner, S.A. 2002. The past as the key to the present: resurrection of ancient proteins from eosinophils. *Proc. Natl. Acad. Sci. USA* 99: 4760-4761.
7. Zhang, J. and Rosenberg, H.F. 2002. Complementary advantageous substitutions in the evolution of an antiviral RNase of higher primates. *Proc. Natl. Acad. Sci. USA* 99: 5486-5491.
8. Online Mendelian Inheritance in Man, OMIM[™]. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 131410: World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: RNASE2 (human) mapping to 14q11.2.

STORAGE

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

SOURCE

RNase 2 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of RNase 2 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.

Blocking peptide available for competition studies, sc-165366 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RNase 2 (C-13) is recommended for detection of RNase 2 of human 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).

Suitable for use as control antibody for RNase 2 siRNA (h): sc-92235, RNase 2 shRNA Plasmid (h): sc-92235-SH and RNase 2 shRNA (h) Lentiviral Particles: sc-92235-V.

Molecular Weight of RNase 2: 18 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.