

RNGTT (D-13): sc-138052

BACKGROUND

RNGTT (RNA guanylyltransferase and 5'-phosphatase), also known as HCE, HCE1, hCAP or CAP1A, is a 597 amino acid protein that localizes to the nucleus and exists as four alternatively spliced isoforms. Expressed in kidney, lung, heart, brain, liver, testis, skin and muscle, RNGTT acts as a bifunctional mRNA-capping enzyme that exhibits RNA 5'-triphosphatase activity at its N-terminus and mRNA guanylyltransferase activity at its C-terminus. Via its catalytic activity, RNGTT facilitates the first two steps of mRNA cap formation, naming the removal of a γ -phosphate from the end of nascent mRNA and the subsequent transfer of the phospho residue to the 5'-diphosphate terminus. The gene encoding RNGTT maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome.

REFERENCES

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3. Tsukamoto, T., Shibagaki, Y., Niikura, Y. and Mizumoto, K. 1998. Cloning and characterization of three human cDNAs encoding mRNA (guanine-7-)-methyltransferase, an mRNA cap methylase. *Biochem. Biophys. Res. Commun.* 251: 27-34.
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CHROMOSOMAL LOCATION

Genetic locus: RNGTT (human) mapping to 6q15; Rngtt (mouse) mapping to 4 A5.

SOURCE

RNGTT (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of RNGTT 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-138052 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RNGTT (D-13) is recommended for detection of RNGTT of mouse, rat and 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).

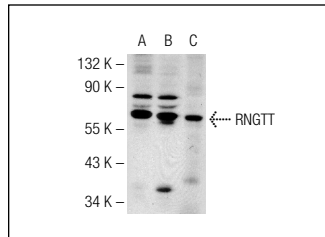
RNGTT (D-13) is also recommended for detection of RNGTT in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for RNGTT siRNA (h): sc-95119, RNGTT siRNA (m): sc-153055, RNGTT shRNA Plasmid (h): sc-95119-SH, RNGTT shRNA Plasmid (m): sc-153055-SH, RNGTT shRNA (h) Lentiviral Particles: sc-95119-V and RNGTT shRNA (m) Lentiviral Particles: sc-153055-V.

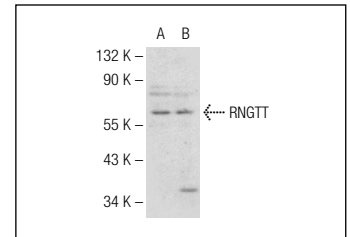
Molecular Weight of RNGTT: 69 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, IMR-32 nuclear extract: sc-2148 or mouse testis extract: sc-2405.

DATA



RNGTT (D-13): sc-138052. Western blot analysis of RNGTT expression in Jurkat (A) and IMR-32 (B) nuclear extracts and mouse testis tissue extract (C).



RNGTT (D-13): sc-138052. Western blot analysis of RNGTT expression in IMR-32 (A) and Hep G2 (B) nuclear extracts.

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.

MONOS
Satisfaction
Guaranteed

Try **RNGTT (D-3): sc-377464** or **RNGTT (H-3): sc-514128**, our highly recommended monoclonal alternatives to RNGTT (D-13).