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RNGTT Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6617b

Product Information

Application	WB, FC, E
Primary Accession	O60942
Other Accession	O55236
Reactivity	Human, Rat, Mouse
Predicted	Mouse, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19827
Calculated MW	68557
Antigen Region	489-516

Additional Information

Gene ID	8732
Other Names	mRNA-capping enzyme, HCAP1, HCE, Polynucleotide 5'-triphosphatase, mRNA 5'-triphosphatase, TPase, mRNA guanylyltransferase, GTP--RNA guanylyltransferase, GTase, RNGTT, CAP1A
Target/Specificity	This RNGTT antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 489-516 amino acids from the C-terminal region of human RNGTT.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	RNGTT Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RNGTT
Synonyms	CAP1A

Function	Bifunctional mRNA-capping enzyme exhibiting RNA 5'- triphosphate monophosphatase activity in the N-terminal part and mRNA guanylyltransferase activity in the C-terminal part. Catalyzes the first two steps of cap formation: by removing the gamma-phosphate from the 5'-triphosphate end of nascent mRNA to yield a diphosphate end, and by transferring the GMP moiety of GTP to the 5'-diphosphate terminus of RNA via a covalent enzyme-GMP reaction intermediate.
Cellular Location	Nucleus.
Tissue Location	Isoform 1 and isoform 4 (at a lesser extent) are expressed in cerebrum, cerebellum, thyroid, lung, heart, liver, kidney, spleen, large intestine, testis, skin and muscle

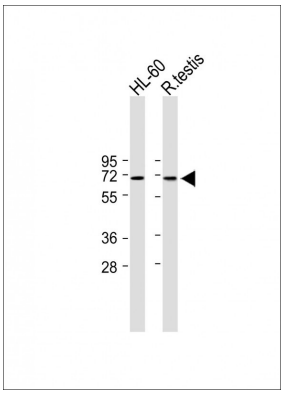
Background

RNGTT is a bifunctional mRNA-capping enzyme exhibiting RNA 5'-triphosphatase activity in the N-terminal part and mRNA guanylyltransferase activity in the C-terminal part. The protein catalyzes the first two steps of cap formation: by removing the gamma-phosphate from the 5'-triphosphate end of nascent mRNA to yield a diphosphate end, and by transferring the gmp moiety of GTP to the 5'-diphosphate terminus.

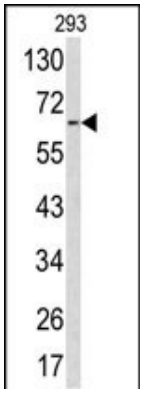
References

Zhou,M., Proc. Natl. Acad. Sci. U.S.A. 100 (22), 12666-12671 (2003)
Chiu,Y.L., J. Biol. Chem. 276 (16), 12959-12966 (2001)

Images

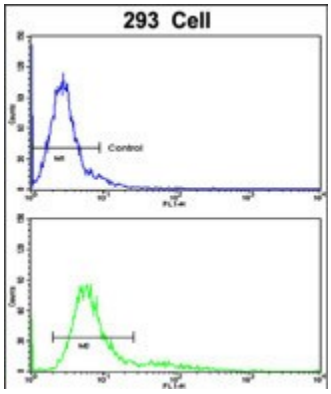


All lanes : Anti-RNGTT Antibody (C-term) at 1:1000 dilution Lane 1: HL-60 whole cell lysate Lane 2: rat testis tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 69kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of RNGTT antibody (C-term) (Cat. #AP6617b) in 293 cell line lysates (35ug/lane). RNGTT (arrow) was detected using the purified Pab.

Flow cytometric analysis of 293 cells using RNGTT Antibody (C-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated



goat-anti-rabbit secondary antibodies were used for the analysis.