

Rabbit RTEL1 Polyclonal Antibody | anti-RTEL1 antibody

Anti-RTEL1 Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127064	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Western Blot

PRODUCT SYNONYMS

RTEL1; Polyclonal Antibody; Anti-RTEL1 Antibody Picoband; regulator of telomere elongation helicase 1 ; Regulator of telomere elongation helicase 1; anti-RTEL1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Most abundant in heart, brain, liver, skeletal muscle and testis but absent in thymus and peripheral blood leukocytes.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-RTEL1 antibody	ELISA, FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	E coli-derived human RTEL1 recombinant protein (Position: D98-K1173).
Subcellular Localization	Nucleus
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	ATP-dependent DNA helicase implicated in telomere-length regulation, DNA repair and the maintenance of genomic stability. Acts as an anti-recombinase to counteract toxic recombination and limit crossover during meiosis. Regulates meiotic recombination and crossover homeostasis by physically dissociating strand invasion events and thereby promotes noncrossover repair by meiotic synthesis dependent strand annealing (SDSA) as well as disassembly of D loop recombination intermediates. Also disassembles T loops and prevents telomere fragility by counteracting telomeric G4-DNA structures, which together ensure the dynamics and stability of the telomere.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.

IMAGES



FCM/FACS (Flow Cytometry)
Figure 2. Flow Cytometry analysis of HepG2 cells using anti-RTEL1 antibody (AAA127064). Overlay histogram showing HepG2 cells stained with AAA127064 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-RTEL1 Antibody (AAA127064, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



WB (Western Blot)
Figure 1. Western blot analysis of RTEL1 using anti-RTEL1 antibody (AAA127064). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human PC-3 whole cell lysates, Lane 4: rat brain tissue lysates, Lane 5: rat testis tissue lysates, Lane 6: rat C6 whole cell lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse testis tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-RTEL1 antigen affinity purified polyclonal antibody (#AAA127064) at 0.25ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for RTEL1 at approximately 160 kDa. The expected band size for RTEL1 is at 134 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-RTEL1 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-RTEL1 antibody	Primary Antibodies; Chromosome Structure; Epigenetics and Nuclear Signaling
References	1. Ballew, B. J., Yeager, M., Jacobs, K., Giri, N., Boland, J., Burdett, L., Alter, B. P., Savage, S. A. Germline mutations of regulator of telomere elongation helicase 1, RTEL1, in dyskeratosis congenita. Hum. Genet. 132: 473-480, 2013. 2. Walne, A. J., Vulliamy, T., Kirwan, M., Plagnol, V., Dokal, I. Constitutional mutations in RTEL1 cause severe dyskeratosis congenita. Am. J. Hum. Genet. 92: 448-453, 2013.

NCBI AND UNIPROT INFORMATION

NCBI GI #	7706541
NCBI GeneID	51750
NCBI Accession #	NP_057518.1
NCBI GenBank Nucleotide #	NM_016434.3
UniProt Accession #	Q9NZ71; Q5JTV3; Q5JTV4; Q9BW37; Q9H402; A2A397; A2A398; B4DRM5; B4DYM3; B4E3N6; E1P5J4; E1P5J5
Molecular Weight	108,457 Da
NCBI Official Full Name	regulator of telomere elongation helicase 1 isoform 1
NCBI Official Synonym Full Names	regulator of telomere elongation helicase 1
NCBI Official Symbol	RTEL1
NCBI Official Synonym Symbols	NHL; RTEL; DKCA4; DKCB5; C20orf41
NCBI Protein Information	regulator of telomere elongation helicase 1; RTEL1; regulator of telomere length
UniProt Protein Name	Regulator of telomere elongation helicase 1
UniProt Gene Name	RTEL1
UniProt Entry Name	RTEL1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/rte11-antibody-flow-cytometry-western-blot-elisa/127064>