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Product datasheet for TA336935

RTEL1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IP, WB
Recommended Dilution:	Immunocytochemistry/ Immunofluorescence: 1:250 - 1:500, Immunoprecipitation, Western Blot: 1:5000 - 1:10000
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	A genomic peptide made to an internal region of the human RTEL1 protein (within residues 800-1000). [Swiss-Prot Q9NZ71]
Formulation:	PBS, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	regulator of telomere elongation helicase 1
Database Link:	NP_116575 Entrez Gene 269400 MouseEntrez Gene 51750 Human Q9NZ71

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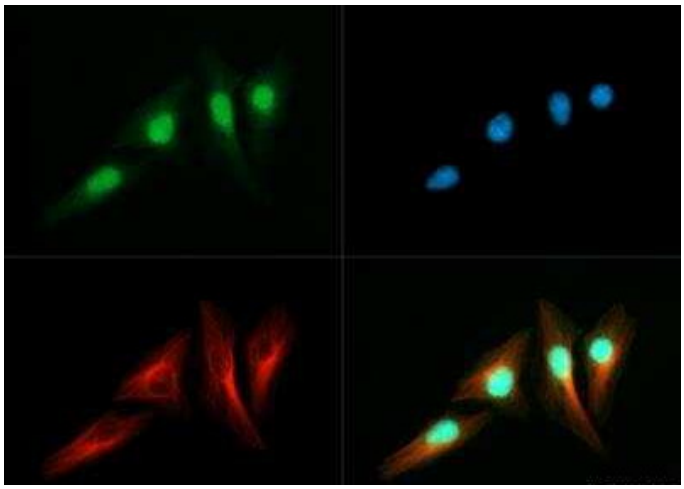
Background: RTEL1 (Regulator of Telomere Length 1) is a nuclear iron-sulfur cluster containing ATP-dependent DNA helicase essential to genomic stability. RTEL1 contains 1 helicase ATP-binding domain and it belongs to helicase family, RAD3/XPD subfamily. Originally discovered in mouse, RTEL1 is a dominant factor controlling the regulation of telomeric length and genomic integrity, and recent evidence suggest that RTEL1 is preferentially recruited to, or exerts greater activity at genome's G-rich regions. In DNA double-strand breaks (DSBs) repair, RTEL1 disrupts D-loops in vitro and promotes synthesis-dependent strand annealing (SDSA) in vivo to direct DNA DSBs into non-crossover outcomes during mitotic repair. RTEL1 activity is also essential to meiotic recombination regulation as shown in C elegans. RTEL1's multiple roles in genomic stability maintenance and recombination regulation suggests it as a tumor suppressor. Indeed, RTEL1 mutation represents a risk factor for glioma and it is overexpressed in gastrointestinal cancers. Human RTEL1 deficiency caused Hoyeraal-Hreidarsson syndrome (HHS), a severe variant of Dyskeratosis Congenita (DC), characterized by early onset bone marrow failure, immunodeficiency and developmental defects.

Synonyms: C20orf41; DKCA4; DKCB5; NHL; PFBMFT3; RTEL

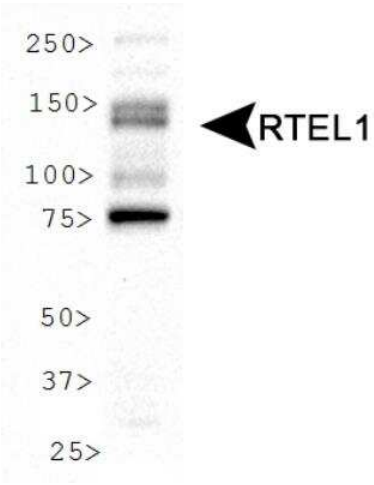
Note: In Immunohistochemistry and ICC/IF nuclear staining was observed. Formulin fixation is recommended for ICC/IF.

Protein Families: Druggable Genome

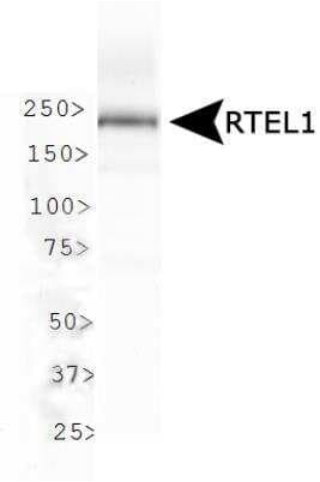
Product images:



Immunocytochemistry/Immunofluorescence: RTEL1 Antibody TA336935 - RTEL1 antibody was tested in Hela cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).



Western Blot: RTEL1 Antibody TA336935 - WB analysis of RTEL1 in HeLa cell lysate.



Western Blot: RTEL1 Antibody TA336935 - WB analysis of RTEL1 in mouse testis lysate.