10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

RNF10 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17072a

Product Information

Application	WB, E
Primary Accession	Q8N5U6
Other Accession	NP_055683.3
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36936
Calculated MW	89927
Antigen Region	178-206

Additional Information

Gene ID	9921
Other Names	RING finger protein 10, RNF10, KIAA0262, RIE2
Target/Specificity	This RNF10 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 178-206 amino acids from the N-terminal region of human RNF10.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	RNF10 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RNF10 {ECO:0000303|PubMed:10697961, ECO:0000312|HGNC:HGNC:10055}
Function	E3 ubiquitin-protein ligase that catalyzes monoubiquitination of 40S ribosomal proteins RPS2/us5 and RPS3/us3 in response to ribosome stalling (PubMed:34348161, PubMed:34469731, PubMed:39609413,

PubMed:39947182, PubMed:39947183, PubMed:40022732). Part of a ribosome quality control that takes place when ribosomes have stalled during translation initiation (iRQC) or elongation (PubMed:34348161, PubMed:34469731, PubMed:39609413, PubMed:39947182, PubMed:39947183, PubMed:40022732). The ribosome quality control is activated in response to ribosome subunit imbalance, amino acid starvation or downstream the EIF2AK4/GCN2-mediated integrated stress response (ISR) (PubMed:39609413, PubMed:39947182, PubMed:39947183, PubMed:40022732). RNF10 acts by mediating monoubiquitination of RPS2/us5 and RPS3/us3: monoubiquitinated RPS2/us5 and RPS3/us3 are then recognized by RIOK3 kinase, leading to 18S non-functional rRNA decay and degradation of the 40S ribosomal subunit (PubMed:34348161, PubMed:34469731, PubMed:39609413, PubMed:39947182, PubMed:39947183, PubMed:40022732). The action of RNF10 in iRQC is counteracted by USP10 (PubMed:34469731).

Cellular Location Cytoplasm. Nucleus {ECO:0000250|UniProtKB:Q5XI59}

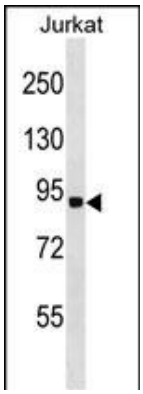
Background

The protein encoded by this gene contains a ring finger motif, which is known to be involved in protein-protein interactions. The specific function of this protein has not yet been determined. EST data suggests the existence of multiple alternatively spliced transcript variants, however, their full length nature is not known.

References

Hoshikawa, S., et al. PLoS ONE 3 (10), E3464 (2008) :
Stelzl, U., et al. Cell 122(6):957-968(2005)
Lin, J., et al. Mol. Cell. Biochem. 275 (1-2), 75-84 (2005) :
Seki, N., et al. J. Hum. Genet. 45(1):38-42(2000)

Images



RNF10 Antibody (N-term) (Cat. #AP17072a) western blot analysis in Jurkat cell line lysates (35ug/lane).This demonstrates the RNF10 antibody detected the RNF10 protein (arrow).