Product name:	Rent1 Rabbit Polyclonal Antibody
Cat number:	ABN17020
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human UPF1. AA range:299-348
Reactivity:	Human,Mouse
Applications:	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
Molecular Weight:	110kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

This gene encodes a protein that is part of a post-splicing multiprotein complex involved in both mRNA nuclear export and mRNA surveillance. mRNA surveillance detects exported mRNAs with truncated open reading frames and initiates nonsense-mediated mRNA decay (NMD). When translation ends upstream from the last exon-exon junction, this triggers NMD to degrade mRNAs containing premature stop codons. This protein is located only in the cytoplasm. When translation ends, it interacts with the protein that is a functional homolog of yeast Upf2p to trigger mRNA decapping. Use of multiple polyadenylation sites has been noted for this gene. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2014],domain:The [ST]-Q motif constitutes a recognition sequence for kinases from the PI3/PI4-kinase family.,function:Part of a post-splicing multiprotein complex. Involved in nonsense-mediated decay (NMD) as part of the SMG1C complex, a mRNA surveillance complex that recognizes and degrades mRNAs containing premature translation termination codons (PTCs). The complex probably acts by associating with ribosomes during tranlation termination on mRNPs. If an exon junction complex (EJC) is located 50-55 or more nucleotides downstream from the termination codon, RENT1 is phosphorylated by SMG1, triggering nonsense-mediated decay (NMD). Essential for embryonic viability.,PTM:Phosphorylated by SMG1; required for formation of mRNA surveillance complexes. Phosphorylated upon DNA damage, probably by ATM or ATR.,similarity:Belongs to the DNA2/NAM7 helicase family.,similarity:Contains 1 C2H2-type zinc finger.,subcellular location:Hyperphosphorylated form is targeted to the P-body, while unphosphorylated protein is distributed throughout the cytoplasm.,subunit:Found in a complex with RENT1, RENT2, RENT3A and RENT3B. Found in a complex with PARN. Found in a post-splicing complex with SMG1, NXF1, RBM8A, RENT1, RENT2, RENT3A, RENT3B and RNPS1. Found in a mRNA decay complex with EXOSC2, EXOSC4, EXOSC10, PARN, XRN1, DCP2, RENT1, RENT2 and RENT3B. Interacts with EST1A and RENT2. Component of the SMG1C complex, at least composed of SMG1, SMG8 and SMG9. The SMG1C complex is then recruited on premature translation termination codons (PTCs) to form the ribosome:SURF complex, at least composed of ERF1, ERF3 (ERF3A or ERF3B), EEF2, UPF1/RENT1, SMG1, SMG8 and SMG9. Interacts (when hyperphosphorylated) with PNRC2.,tissue specificity:Ubiquitous.,