

Product datasheet for TA362981

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Upf1 Rabbit Polyclonal Antibody

Product data:

Product Type: Primary Antibodies

Applications: WB

Reactivity: Mouse Host: Rabbit

Clonality: Polyclonal

Immunogen: The immunogen is a synthetic peptide directed towards the C terminal region of mouse UPF1

Specificity: Expected reactivity: Mouse

Formulation: Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2%

sucrose.

Concentration: lot specific

Purification: Affinity purified
Conjugation: Unconjugated

Storage: For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small

aliquots to prevent freeze-thaw cycles.

Stability: Shelf life: one year from despatch.

Predicted Protein Size: 123 kDa

Gene Name: UPF1 regulator of nonsense transcripts homolog (yeast)

Database Link: NP 001116301.1

Entrez Gene 19704 Mouse

Q9EPU0





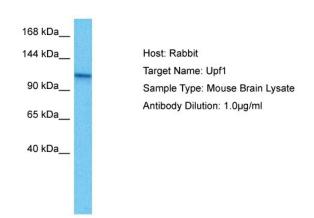
Background:

RNA-dependent helicase and ATPase required for nonsense-mediated decay (NMD) of mRNAs containing premature stop codons. Is recruited to mRNAs upon translation termination and undergoes a cycle of phosphorylation and dephosphorylation; its phosphorylation appears to be a key step in NMD. Recruited by release factors to stalled ribosomes together with the SMG1C protein kinase complex to form the transient SURF (SMG1-UPF1-eRF1-eRF3) complex. In EJC-dependent NMD, the SURF complex associates with the exon junction complex (EJC) (located 50-55 or more nucleotides downstream from the termination codon) through UPF2 and allows the formation of an UPF1-UPF2-UPF3 surveillance complex which is believed to activate NMD. Phosphorylated UPF1 is recognized by EST1B/SMG5, SMG6 and SMG7 which are thought to provide a link to the mRNA degradation machinery involving exonucleolytic and endonucleolytic pathways, and to serve as adapters to protein phosphatase 2A (PP2A), thereby triggering UPF1 dephosphorylation. UPF1 can also activate NMD without UPF2 or UPF3, and in the absence of the NMDenhancing downstream EJC indicative for alternative NMD pathways. Plays a role in replication-dependent histone mRNA degradation at the end of phase S; the function is independent of UPF2. For the recognition of premature termination codons (PTC) and initiation of NMD a competitive interaction between UPF1 and PABPC1 with the ribosomebound release factors is proposed. The ATPase activity of UPF1 is required for disassembly of mRNPs undergoing NMD (By similarity). Essential for embryonic viability.

Synonyms:

FLJ43809; FLJ46894; HUPF1; KIAA0221; NORF1; pNORF1; RENT1

Product images:



Host: Rabbit Target Name: UPF1

Sample Tissue: Mouse Brain lysates

Antibody Dilution: 1ug/ml