

Product datasheet for TP516969

Upf1 (NM_001122829) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse UPF1 regulator of nonsense transcripts homolog (yeast) (Upf1), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA	>MR216969 representing NM_001122829
Clone or AA Sequence:	Red=Cloning site Green=Tags(s)

MSVEAYGPSSQTLTFLDTEEAELLGADTQGSEFEFTDFTLPSQTQTTPPGGGGAGGGPGGAGAGGAAGQLD
 AQVGPEGILQNGAVDDSVAKTSQLLAELNFEDEEDTYTKDLPVHACSYCGIHDPACVWCNTSKKWFC
 NGRGNTSGSHIVNHLVRAKCKEVTLHKDGPLGETVLECYNCGCRNVFLLGFIPAKADSVVLLCRQPCAS
 QSSLKDINWDSSQWQPLIQDRCFLSWLVKIPSEQEQLRARQITAQQINKLEELWKENPSATLEDLEKPGV
 DEEPQHVLRLRYEDAYQYQNIQIFGPLVKLEADYDKKLESQTQDNITVRWDLGLNKKRIAFFTLPKTDSGNE
 DLVIIWLRDMRLMQGDEICLRYKGDAPLWKGIGHVIVKVPDNYGDEIAIELRSSVGAPVEVTHNFQVDFV
 WKSTSFDRMQSALKTFVDETSVSGYIYHKLKGHEVEDVVIKQQLPKRFTAQGLPDLNHSQVYAVKTVLQ
 RPLSLIQPPGTGKTVTSATIVYHLARQNGPVLVCAPSNIAVDQLTEKIHQTGLKVRLCAKSREIDS
 PVSFLALHNQIRNMDSMPELQKLQKDETGELSSADEKRYRALKRRAERELLMNADVICCTCVGAGDPR
 LAKMQFRSILIDESTQATEPECMVPVVLGAKQLILVGDHCQLGPVVMCKKAAKAGLSQSLFERLVLGIR
 PIRLQVQYRMHPALSAPFSNIFYEGSLQNGVTAADRVKKGFDQWPQPKPMFFYVTQGQEEIASSGTSY
 LNRTEAANVEKITTLLKAGAKPDQIGIITPYEGQRSYLVQYMQFSGSLHTKLYQEVEIASVDAFQGREK
 DFII LSCVRANEHQGIGFLNDPRRLNVALTRARYGVIIVGNPKALSKQPLWNHLLSYKEQKALVEGPLN
 NLRESLMQFSKPRKLVNTVNPGARFMTTAMYDAREAIIPGSVYDRSSQGRPSNMYFQTHDQISMISAGPS
 HVAAMNIPFNLVMPMPPPGYFGQANGPAAGRGTGPKTKTGRGGRQKNRFLPGPSQTTLPNSQASQDV
 ASQPFSQGALTQGYVMSQPSQMSQPGLSQPELSQDSYLGDEFKSDIDVALSQDSTYQGERAYQHGGVTG
 LSQY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-MYC/DDK
Predicted MW:	124 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining



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Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_001116301
Locus ID:	19704
UniProt ID:	Q9EPU0
RefSeq Size:	4657
Cytogenetics:	8 34.15 cM
RefSeq ORF:	3372
Synonyms:	B430202H16Rik; NORF1; PNORF-1; Rent1; Upflp
Summary:	<p>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 NMD-enhancing 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 ribosome-bound release factors is proposed. The ATPase activity of UPF1 is required for disassembly of mRNPs undergoing NMD (By similarity). Essential for embryonic viability.[UniProtKB/Swiss-Prot Function]</p>