Datasheet for ABIN6945255

anti-RENT1/UPF1 antibody

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Overview

Quantity:	100 µL
Target:	RENT1/UPF1 (UPF1)
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Monoclonal
Conjugate:	This RENT1/UPF1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunoprecipitation (IP), Flow Cytometry (FACS)

Product Details

Immunogen:	Recombinant protein within human hUPF1 aa 1-200.
Clone:	9A3
Isotype:	IgG
Cross-Reactivity:	Human, Mouse
Purification:	Purified by Protein A.

Target Details

Target:	RENT1/UPF1 (UPF1)
Alternative Name:	UPF1 (UPF1 Products)

Target Details

Background:	Synonyms: Regulator of nonsense transcripts 1, UPF1 RNA helicase and ATPase, ATP-dependent helicase RENT1, Nonsense mRNA reducing factor 1, Up-frameshift suppressor 1 homolog, NORF1, hUpf1, KIAA0221, RENT1 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 and allowing the recycling of NMD factors. 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. Essential for embryonic viability.
Gene ID:	5976
UniProt:	Q92900
Pathways:	SARS-CoV-2 Protein Interactome

Application Details

Application Notes:	WB 1:300-5000
	FCM 1:20-100
	IHC-P 1:200-400
	IF(IHC-P) 1:50-200
	IF(ICC) 1:50-200
	IP(1-2 μg)

Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 µg/µL
Buffer:	Aqueous buffered solution containing 1xTBS (pH 7.4), 1 % BSA, 40 %Glycerol and 0.05 % Sodium Azide.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20°C for 12 months.
Expiry Date:	12 months