

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human RENT1/UPF1 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human RENT1/UPF1 Asp351-Arg600 Accession # NP_002902
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

UPF1 (Up-frameshift mutation-1; also RENT1, SMG-2 and NORF1) is a 125-130 kDa member of the DNA2/NAM7 helicase family of molecules. It is ubiquitously expressed, and promotes the turnover of mRNA containing premature stop codons. UPF1 is a cytoplasmic factor that contributes to the formation of a UPF complex. During the translation of properly transcribed mRNA, unphosphorylated UPF1 is blocked from interacting with eRF3, a translation initiation factor. In the presence of an improper stop codon, a detection complex termed EJC initiates phosphorylation of UPF1, allowing it to bind to eRF3 and repress translation. Human UPF1 is 1129 amino acids (aa) in length. It contains one C2H2-type Zn finger motif (aa 131-159), an NTPase domain (aa 486-545) and three phosphorylation sites at Ser1107/1127/1129. There are two potential isoforms that show deletions of aa 54-58 and 353-363, respectively. Over aa 351-600, human UPF1 shares 99% aa identity with mouse UPF1.

PRODUCT SPECIFIC NOTICES

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