

## **Human RENT1/UPF1 Antibody**

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF5879

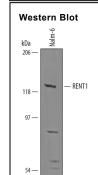
DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human RENT1/UPF1 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	E. coli-derived recombinant human RENT1/UPF1 Asp351-Arg600 Accession # NP_002902
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

## 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.

	Recommended Concentration	Sample
Western Blot	1 μg/mL	See Below

## DATA



Detection of Human RENT1/UPF1 by Western Blot. Western blot shows lysates of Nalm-6 human Pre-B acute lymphocytic leukemia cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human RENT1/UPF1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5879) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for RENT1/UPF1 at approximately 125-130 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

PREPARATION AND STORAGE		
Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.	
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C	
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.	
	<ul> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> </ul>	

- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

## 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

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