

DESCRIPTION

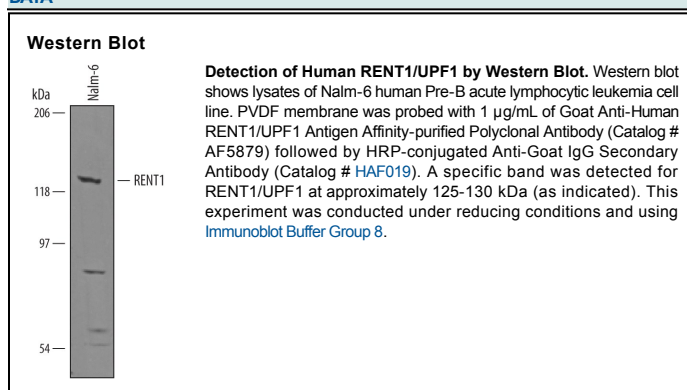
Species Reactivity	Human
Specificity	Detects human RENT1/UPF1 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human RENT1/UPF1 Asp351-Arg600 Accession # NP_002902
Formulation	Lyophilized from a 0.2 µm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



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 style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 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.