

UPF3B Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP9653c

Specification

UPF3B Antibody (Center) - Product Information

Application	WB,E
Primary Accession	<u>Q9BZI7</u>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	320-349

UPF3B Antibody (Center) - Additional Information

Gene ID 65109

Other Names

Regulator of nonsense transcripts 3B, Nonsense mRNA reducing factor 3B, Up-frameshift suppressor 3 homolog B, hUpf3B, Up-frameshift suppressor 3 homolog on chromosome X, hUpf3p-X, UPF3B, RENT3B, UPF3X

Target/Specificity

This UPF3B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 320-349 amino acids from the Central region of human UPF3B.

Dilution WB~~1:1000 E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

UPF3B Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

UPF3B Antibody (Center) - Protein Information

Name UPF3B (HGNC:20439)

Function Involved in nonsense-mediated decay (NMD) of mRNAs containing premature stop



codons by associating with the nuclear exon junction complex (EJC) and serving as link between the EJC core and NMD machinery. Recruits UPF2 at the cytoplasmic side of the nuclear envelope and the subsequent formation of an UPF1-UPF2-UPF3 surveillance complex (including UPF1 bound to release factors at the stalled ribosome) is believed to activate NMD. In cooperation with UPF2 stimulates both ATPase and RNA helicase activities of UPF1. Binds spliced mRNA upstream of exon-exon junctions. In vitro, stimulates translation; the function is independent of association with UPF2 and components of the EJC core.

Cellular Location

Nucleus. Cytoplasm Note=Shuttling between the nucleus and the cytoplasm

Tissue Location

Expressed in testis, uterus, prostate, heart, muscle, brain, spinal cord and placenta.

UPF3B Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

UPF3B Antibody (Center) - Images



Western blot analysis of UPF3B Antibody (Center) (Cat. #AP9653c) in Hela cell line lysates (35ug/lane). UPF3B (arrow) was detected using the purified Pab.

UPF3B Antibody (Center) - Background

UPF3B is a protein that is part of a post-splicing multiprotein complex involved in both mRNA nuclear export and mRNA surveillance. This protein is one of two functional homologs to yeast Upf3p. mRNA surveillance detects exported mRNAs with truncated open reading frames and initiates nonsense-mediated mRNA decay (NMD). When translation ends upstream from the last exon-exon junction, this triggers NMD to degrade mRNAs containing premature stop codons. This protein binds to the mRNA and remains bound after nuclear export, acting as a nucleocytoplasmic



shuttling protein. It forms with Y14 a complex that binds specifically 20 nt upstream of exon-exon junctions.

UPF3B Antibody (Center) - References

Chan, W.K., et al. Nat. Struct. Mol. Biol. 16(7):747-753(2009) Woeller, C.F., et al. EMBO Rep. 9(5):446-451(2008) Chamieh, H., et al. Nat. Struct. Mol. Biol. 15(1):85-93(2008) **UPF3B Antibody (Center) - Citations** • Full UPF3B function is critical for neuronal differentiation of neural stem cells.