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Datasheet for 600-401-FV0

UNG1 Antibody

Overview

Description:	Anti-UNG1 (RABBIT) Antibody - 600-401-FV0
Item No.:	600-401-FV0
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	The human uracil-DNA glycosylase (UNG) gene encodes both mitochondrial (UNG1) and nuclear (UNG2) forms through differentially regulated promotes and alternative splicing. While UNG2 is the major enzyme in the base excision repair pathway that removes uracil residues from nuclear DNA that arise through either misincorporation during replication or cytosine deamination, inhibition of UNG1 by uracil glycosylase inhibitor did not lead to increased levels of spontaneous or induced mitochondrial DNA mutations. However, decreased levels of UNG activity and increased oxidative damage to mitochondrial DNA were seen in older mice, suggesting that mitochondrial DNA repair mechanisms may be involved in various neurodegenerative disorders in an age-dependent manner. This UNG1 antibody will not cross-react with UNG2.
Synonyms:	UNG1 Antibody, DGU, UDG, UNG1, UNG2, HIGM4, HIGM5, UNG15, DGU, Uracil-DNA glycosylase
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	UNG
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-UNG1 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 14 amino acid synthetic peptide from near the C-terminus of human UNG1.
Purity/Specificity:	Anti-UNG1 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with UNG1 from other sources has not been determined.
Relevant Links:	• UniProtKB - P13051 • GeneID - 7374 • NCBI - NP_003353.1

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-UNG1 Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 34 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5000 - 1:20,000
IF:	20 µg/mL
IHC:	2 µg/mL
WB:	0.5-2 µg/mL

Formulation

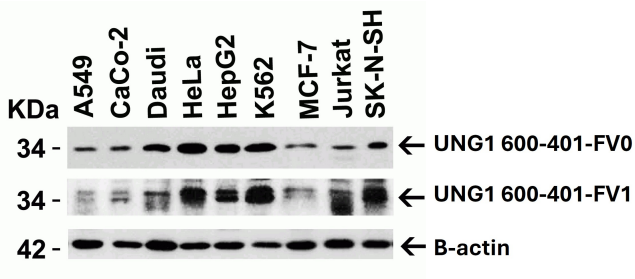
Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

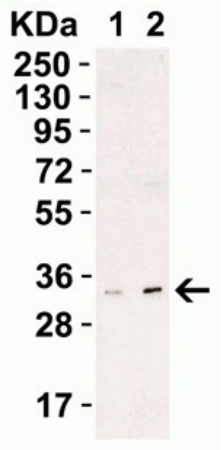
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

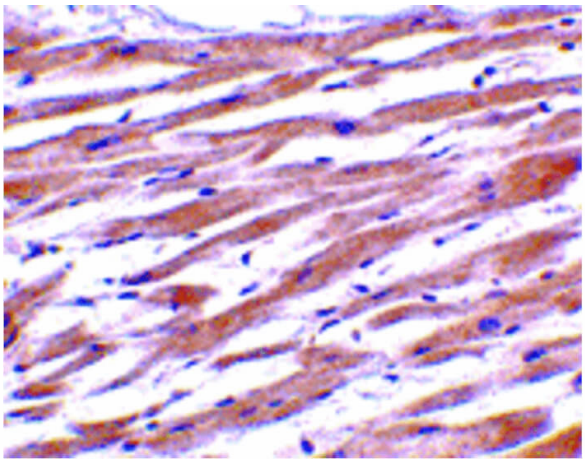
Images



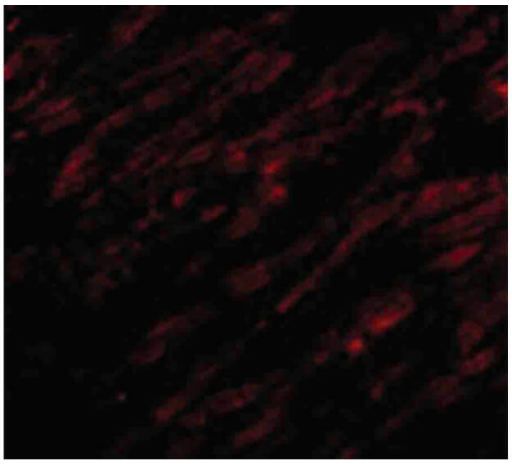
Western Blot
Western Blot using UNG1. Loading: 15 µg of lysates per lane. Antibodies: UNG1, 600-401-FV0 (0.5 µg/mL), UNG1, 600-401 -FV1 (4 µg/mL), beta-actin (1 µg/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



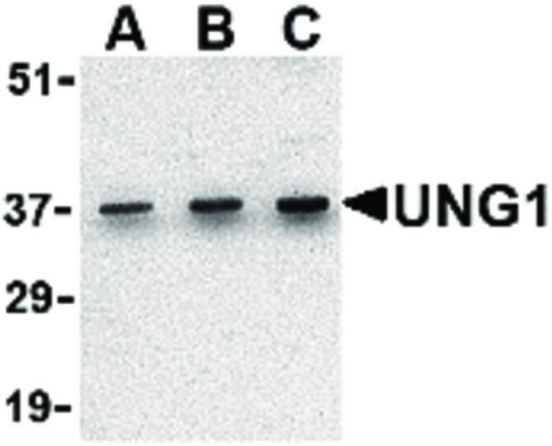
Western Blot
Western Blot Validation. Loading: 15 µg of HeLa cell lysates per lane. Antibodies: UNG1, (Lane 1: 0.5 µg/mL and Lane 2: 1 µg/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Immunohistochemistry
Immunohistochemistry of UNG1 antibody. Tissue: human heart tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: UNG1 antibody at 2 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: UNG1 is cytoplasmic. Staining: UNG1 is stained with hematoxylin purple nuclear counterstain.



Immunofluorescence Microscopy
Immunofluorescence Microscopy of UNG1 antibody. Cell Type: Human heart cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: UNG1 antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: UNG1 cytoplasmic. Staining: UNG1 as red fluorescent signal.



Western Blot
Western Blot of UNG1 antibody in C2C12 cell lysate. Lane A: UNG1 antibody at 0.5 µg/mL. Lane B: UNG1 antibody at 1 µg/mL. Lane C: UNG1 antibody at 2 µg/mL. Load: 35 µg per lane. Primary antibody: UNG1 antibody at designated concentrations for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C.
Predicted/Observed size: 113 kDa, 37 kDa for UNG1. Other band(s): UNG1 splice variants and isoforms.

Disclaimer

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