

UNG2 Antibody
Catalog # ASC11658**Specification**

UNG2 Antibody - Product Information

Application	WB, IF
Primary Accession	P13051
Other Accession	NP_550433 , 19718751
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 34 kDa

Application Notes	Observed: 33 kDa KDa UNG2 antibody can be used for detection of UNG2 by Western blot at 1 - 2 µg/mL. For immunofluorescence start at 20 µg/mL.
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UNG2 Antibody - Additional InformationGene ID **7374****Target/Specificity**

UNG; At least two isoforms of UNG2 are known to exist; this antibody will only detect the longer isoform. UNG2 antibody is predicted to not cross-react with UNG1.

Reconstitution & Storage

UNG2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

Precautions

UNG2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

UNG2 Antibody - Protein Information

Name UNG {ECO:0000255|HAMAP-Rule:MF_03166}

Function

Excises uracil residues from the DNA which can arise as a result of misincorporation of dUMP residues by DNA polymerase or due to deamination of cytosine.

Cellular Location

[Isoform 1]: Mitochondrion.

Tissue Location

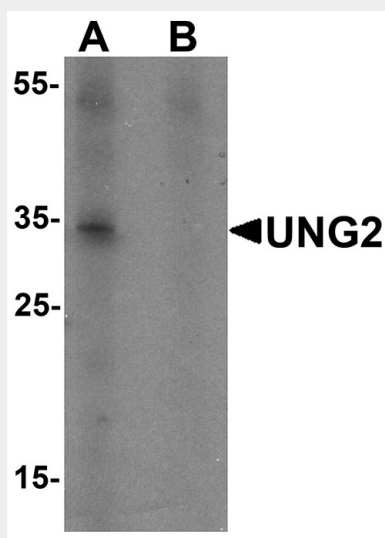
Isoform 1 is widely expressed with the highest expression in skeletal muscle, heart and testicles. Isoform 2 has the highest expression levels in tissues containing proliferating cells

UNG2 Antibody - Protocols

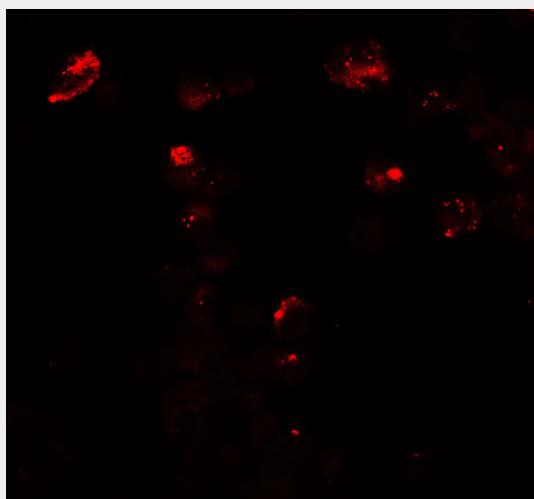
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

UNG2 Antibody - Images



Western blot analysis of UNG2 in 3T3 cell lysate with UNG2 antibody at 1 $\mu\text{g/mL}$ in (A) the presence and (B) the absence of blocking peptide.



Immunofluorescence of UNG2 in 3T3 cells with UNG2 antibody at 20 $\mu\text{g/mL}$.

UNG2 Antibody - Background

UNG2 Antibody: The human uracil-DNA glycosylase (UNG) gene encodes both mitochondrial

(UNG1) and nuclear (UNG2) forms through differentially regulated promoters and alternative splicing. UNG2 is the major enzyme in the base excision repair pathway that removes uracil residues from DNA that arise through either misincorporation during replication or cytosine deamination. UNG2 can also be bound by the HIV-1 integrase and incorporated into the virion particle, suggesting that it is required to remove uracils from the viral genome. As the intrinsic antiviral protein APOBEC3G generates numerous uracils in the HIV genome during its replication, it may be that the UNG2 contributes to the APOBEC3G-mediated loss of infectivity by generating abasic sites in the viral genome.

UNG2 Antibody - References

- Krokan HE, Otterlei M, Nilsen H, et al. Properties and functions of human uracil-DNA glycosylase from the UNG gene. *Prog. Nucleic Acid Res. Mol. Biol.* 2001; 68:365-86.
- Fromm JC and Verdine GL. Base excision repair. *Adv. Protein Chem.* 2004; 69:1-41.
- Willetts KE, Rey F, Agostini I, et al. DNA repair enzyme uracil DNA glycosylase is specifically incorporated into human immunodeficiency virus type 1 viral particles through a Vpr-independent mechanism. *J. Virol.* 1999; 73:1682-8.
- Harris RS, Bishop KN, Sheehy AM, et al. DNA deamination mediates innate immunity to retroviral infection. *Cell* 2003; 113:803-9.