

**Anti-UNG Picoband Antibody**  
Catalog # ABO10204**Specification****Anti-UNG Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P13051</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Uracil-DNA glycosylase(UNG) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-UNG Picoband Antibody - Additional Information**

Gene ID 7374

**Other Names**

Uracil-DNA glycosylase {ECO:0000255|HAMAP-Rule:MF\_03166}, UDG {ECO:0000255|HAMAP-Rule:MF\_03166}, 3.2.2.27 {ECO:0000255|HAMAP-Rule:MF\_03166}, UNG {ECO:0000255|HAMAP-Rule:MF\_03166}

**Calculated MW**

34645 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat  
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

**Subcellular Localization**

Isoform 1: Mitochondrion.

**Tissue Specificity**

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.

**Protein Name**

Uracil-DNA glycosylase

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

E.coli-derived human UNG recombinant protein (Position: R219-L313). Human UNG shares 92.6%

amino acid (aa) sequence identity with mouse UNG.

#### **Purification**

Immunogen affinity purified.

#### **Cross Reactivity**

No cross reactivity with other proteins.

#### **Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

### **Anti-UNG Picoband 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**

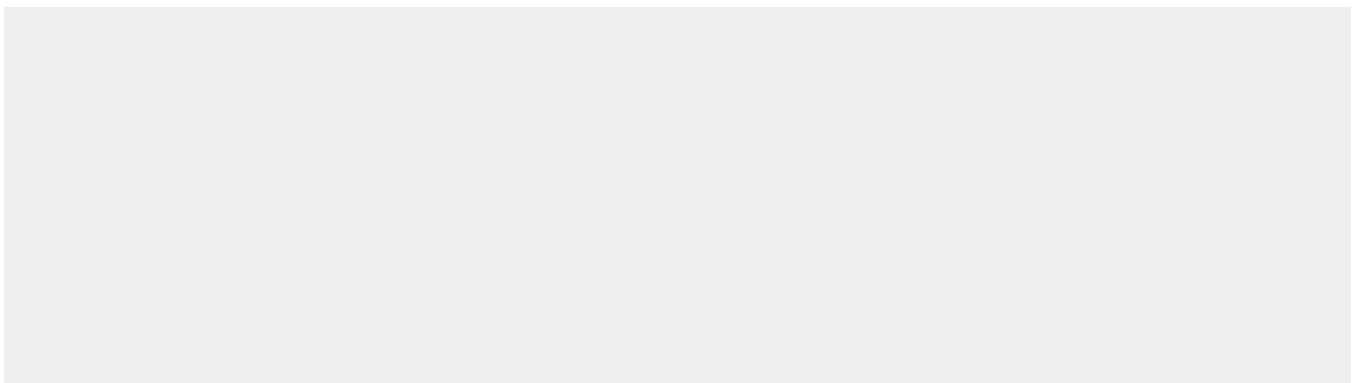
Isoform 1 is widely expressed with the highest expression in skeletal muscle, heart and testicles. Isoform 2 has the highest expression levels in tissues containing proliferating cells

### **Anti-UNG Picoband 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](#)

### **Anti-UNG Picoband Antibody - Images**



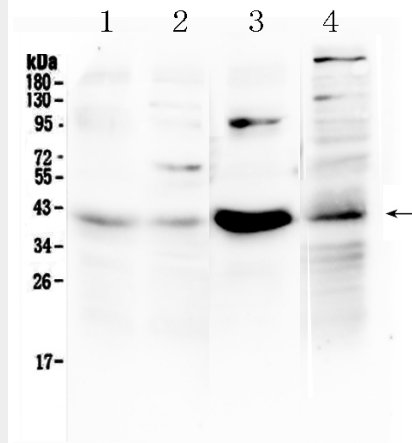


Figure 1. Western blot analysis of UNG using anti- UNG antibody (ABO10204). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat skeletal muscle tissue lysates, Lane 2: rat heart tissue lysates, Lane 3: mouse skeletal muscle tissue lysates, Lane 4: 22RV1 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- UNG antigen affinity purified polyclonal antibody (Catalog # ABO10204) at 0.5  $\mu$ g/mL overnight at 4 $^{\circ}$ C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for UNG at approximately 39KD. The expected band size for UNG is at 35KD.

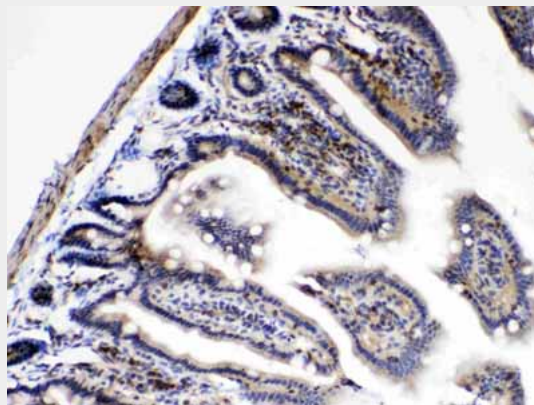


Figure 2. IHC analysis of UNG using anti- UNG antibody (ABO10204).UNG was detected in paraffin-embedded section of mouse intestine tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 $\mu$ g/ml rabbit anti-UNG Antibody (ABO10204) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

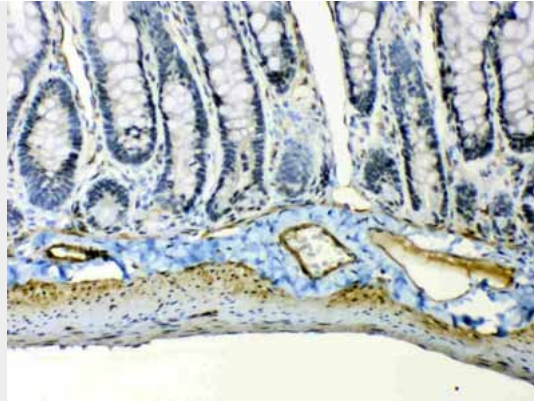


Figure 3. IHC analysis of UNG using anti- UNG antibody (ABO10204).UNG was detected in paraffin-embedded section of rat intestine tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1½g/ml rabbit anti- UNG Antibody (ABO10204) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

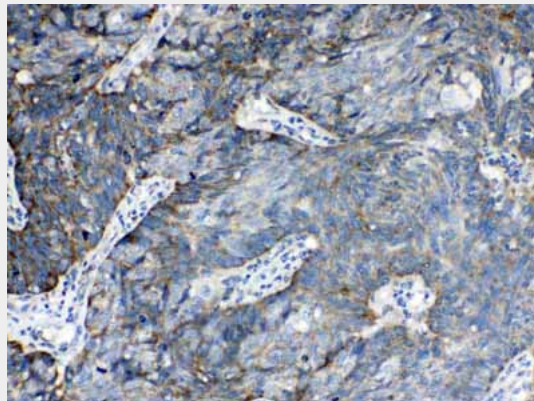


Figure 4. IHC analysis of UNG using anti- UNG antibody (ABO10204).UNG was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1½g/ml rabbit anti-UNG Antibody (ABO10204) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

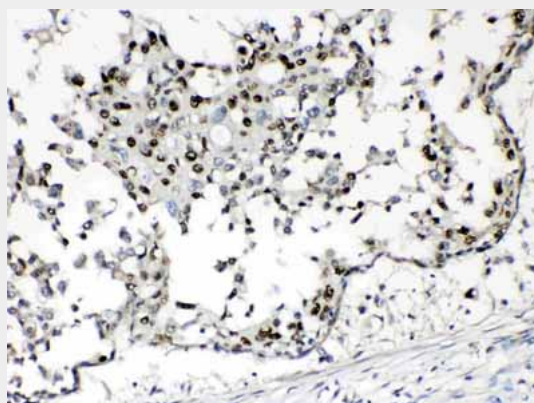


Figure 5. IHC analysis of UNG using anti- UNG antibody (ABO10204).UNG was detected in

paraffin-embedded section of human mammary cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1½g/ml rabbit anti- UNG Antibody (ABO10204) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

#### **Anti-UNG Picoband Antibody - Background**

Uracil-DNA glycosylase, also known as UNG or UDG, is a human gene though orthologs exist ubiquitously among prokaryotes and eukaryotes and even in some DNA viruses. The first uracil DNA-glycosylase was isolated from Escherichia coli. This gene encodes one of several uracil-DNA glycosylases. One important function of uracil-DNA glycosylases is to prevent mutagenesis by eliminating uracil from DNA molecules by cleaving the N-glycosylic bond and initiating the base-excision repair (BER) pathway. Uracil bases occur from cytosine deamination or misincorporation of dUMP residues. Alternative promoter usage and splicing of this gene leads to two different isoforms: the mitochondrial UNG1 and the nuclear UNG2. The UNG2 term was used as a previous symbol for the CCNO gene, which has been confused with this gene, in the literature and some databases.