

KD-Validated Anti-Uracil DNA Glycosylase Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1748**Specification****KD-Validated Anti-Uracil DNA Glycosylase Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	P13051
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 35 kDa , observed , 32 kDa KDa
Gene Name	UNG
Aliases	UNG; Uracil DNA Glycosylase; UNG1; UDG; HIGM4; UNG2; DGU; Uracil-DNA Glycosylase 1, Uracil-DNA Glycosylase 2; Uracil-DNA Glycosylase; UNG15; EC 3.2.2.27; EC 3.2.2; HIGM5
Immunogen	A synthesized peptide derived from human UNG

KD-Validated Anti-Uracil DNA Glycosylase Rabbit Monoclonal Antibody - Additional InformationGene 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}

KD-Validated Anti-Uracil DNA Glycosylase Rabbit Monoclonal Antibody - Protein Information**Name** UNG {ECO:0000255|HAMAP-Rule:MF_03166}**Function**

Uracil-DNA glycosylase that hydrolyzes the N-glycosidic bond between uracil and deoxyribose in single- and double-stranded DNA (ssDNA and dsDNA) to release a free uracil residue and form an abasic (apurinic/apyrimidinic; AP) site. Excises uracil residues arising as a result of misincorporation of dUMP residues by DNA polymerase during replication or due to spontaneous or enzymatic deamination of cytosine (PubMed:12958596, PubMed:15967827, PubMed:17101234, PubMed:22521144, PubMed:7671300, PubMed:8900285, PubMed:9016624)

target="_blank">9016624, PubMed:9776759). Mediates error-free base excision repair (BER) of uracil at replication forks. According to the model, it is recruited by PCNA to S-phase replication forks to remove misincorporated uracil at U:A base mismatches in nascent DNA strands. Via trimeric RPA it is recruited to ssDNA stretches ahead of the polymerase to allow detection and excision of deaminated cytosines prior to replication. The resultant AP sites temporarily stall replication, allowing time to repair the lesion (PubMed:22521144). Mediates mutagenic uracil processing involved in antibody affinity maturation. Processes AICDA-induced U:G base mismatches at variable immunoglobulin (Ig) regions leading to the generation of transversion mutations (PubMed:12958596). Operates at switch sites of Ig constant regions where it mediates Ig isotype class switch recombination. Excises AICDA-induced uracil residues forming AP sites that are subsequently nicked by APEX1 endonuclease. The accumulation of staggered nicks in opposite strands results in double strand DNA breaks that are finally resolved via non-homologous end joining repair pathway (By similarity) (PubMed:12958596).

Cellular Location

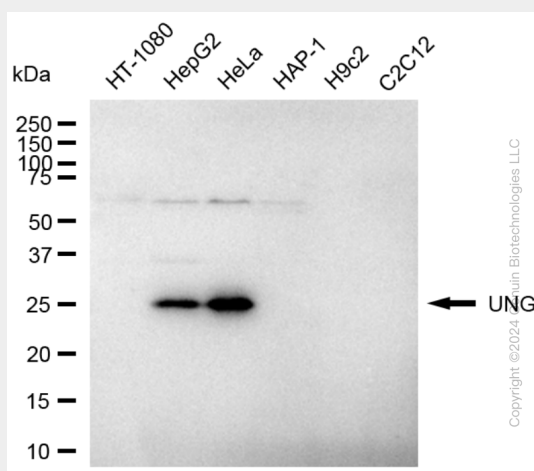
[Isoform 1]: Mitochondrion

KD-Validated Anti-Uracil DNA Glycosylase Rabbit Monoclonal 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](#)

KD-Validated Anti-Uracil DNA Glycosylase Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-UNG antibody (Cat#AGI1748). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-UNG antibody (Cat#AGI1748, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

