

**Anti-Endo G Rabbit Monoclonal Antibody**  
**Catalog # ABO15255****Specification**

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**Anti-Endo G Rabbit Monoclonal Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q14249</a>
Host	Rabbit
Isotype	IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

**Description**

Anti-Endo G Rabbit Monoclonal Antibody . Tested in WB application. This antibody reacts with Human, Mouse, Rat.

**Anti-Endo G Rabbit Monoclonal Antibody - Additional Information**

**Gene ID** 2021

**Other Names**

Endonuclease G, mitochondrial, Endo G, 3.1.30.-, ENDOG

**Application Details**

WB 1:500-1:2000

**Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**

A synthesized peptide derived from human Endo G

**Purification**

Affinity-chromatography

**Storage**

**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

**Anti-Endo G Rabbit Monoclonal Antibody - Protein Information**

**Name** ENDOG

**Function**

Endonuclease that preferentially catalyzes the cleavage of double-stranded 5-hydroxymethylcytosine (5hmC)-modified DNA (PubMed:<a

href="http://www.uniprot.org/citations/25355512" target="\_blank">25355512</a>). The 5hmC-modified nucleotide does not increase the binding affinity, but instead increases the efficiency of cutting and specifies the site of cleavage for the modified DNAs (By similarity). Shows significantly higher affinity for four-stranded Holliday junction over duplex and single-stranded DNAs (By similarity). Promotes conservative recombination when the DNA is 5hmC-modified (PubMed:<a href="http://www.uniprot.org/citations/25355512" target="\_blank">25355512</a>). Promotes autophagy through the suppression of mTOR by its phosphorylation-mediated interaction with YWHAG and its endonuclease activity-mediated DNA damage response (PubMed:<a href="http://www.uniprot.org/citations/33473107" target="\_blank">33473107</a>). GSK3-beta mediated phosphorylation of ENDOG enhances its interaction with YWHAG, leading to the release of TSC2 and PIK3C3 from YWHAG resulting in mTOR pathway suppression and autophagy initiation (PubMed:<a href="http://www.uniprot.org/citations/33473107" target="\_blank">33473107</a>). Promotes cleavage of mtDNA in response to oxidative and nitrosative stress, in turn inducing compensatory mtDNA replication (PubMed:<a href="http://www.uniprot.org/citations/29719607" target="\_blank">29719607</a>).

### Cellular Location

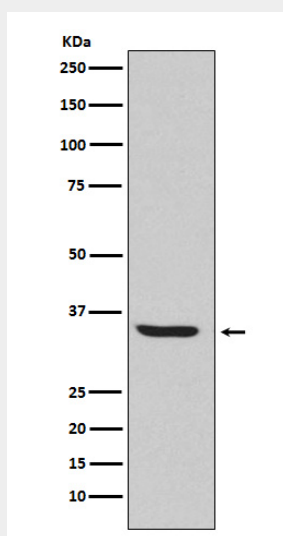
Mitochondrion.

### Anti-Endo G 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](#)

### Anti-Endo G Rabbit Monoclonal Antibody - Images



Western blot analysis of Endo G expression in HepG2 cell lysate.