

产品名称: Endo G (1G19) Rabbit Monoclonal Antibody
产品货号: AMRe10459



产品概述 (Summary)

产品名称 (Production Name)	Endo G (1G19) Rabbit Monoclonal Antibody
描述 (Description)	Recombinant rabbit monoclonal antibody
宿主 (Host)	Rabbit
应用 (Application)	WB
种属反应性 (Reactivity)	Human,Mouse,Rat

产品性能 (Performance)

偶联物 (Conjugation)	Unconjugated
修饰 (Modification)	Unmodified
同种型 (Isotype)	IgG
克隆 (Clonality)	Monoclonal
形式 (Form)	Liquid
存放说明 (Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液 (Buffer)	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
纯化方式 (Purification)	Affinity purification

免疫原信息 (Immunogen)

基因名 (Gene Name)	ENDOG
别名 (Alternative Names)	EndoG; EndonucleaseG; Mitochondrial endonuclease G; NUCG_HUMAN;
基因 ID (Gene ID)	2021.0
蛋白 ID (SwissProt ID)	Q14249.

产品应用 (Application)

稀释比 (Dilution Ratio)	WB 1:1000-1:5000
蛋白分子量 (Molecular Weight)	33kDa

研究背景 (Background)

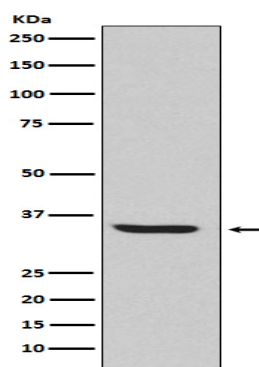
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Endo G is a nuclear encoded endonuclease that is localized in the mitochondrion. The encoded protein cleaves DNA at GC tracts. It is capable of generating the RNA primers required by DNA polymerase gamma to initiate replication of mitochondrial DNA. Endonuclease that preferentially catalyzes the cleavage of double-stranded 5-hydroxymethylcytosine (5hmC)-modified DNA (PubMed:25355512). 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:25355512). Promotes autophagy through the suppression of mTOR by its phosphorylation-mediated interaction with YWHAG and its endonuclease activity-mediated DNA damage response (PubMed:33473107). 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:33473107). Promotes cleavage of mtDNA in response to oxidative and nitrosative stress, in turn inducing compensatory mtDNA replication (PubMed:29719607).

研究领域 (Research Area)

图片 (Image Data)



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

注意事项 (Note)

For research use only .