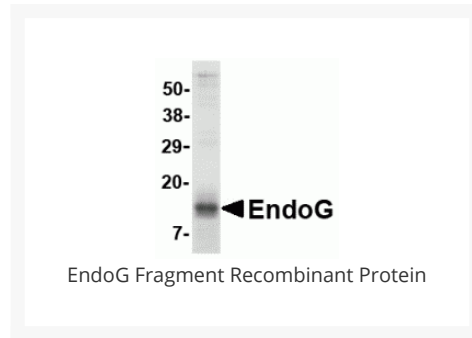




EndoG Fragment Recombinant Protein

Cat. No.: 95-103



Ψ Specifications

SPECIES:	Human
SOURCE SPECIES:	E. coli
SEQUENCE:	aa. 51 - 140
FUSION TAG:	Fusion Partner: His-tag and strepII-tag at N-terminus
TESTED APPLICATIONS:	ELISA, WB
APPLICATIONS:	This recombinant protein can be used for WB and ELISA. For research use only.
PREDICTED MOLECULAR WEIGHT:	15 kDa (Calculated)

Ψ Properties

PURITY:	~95%
PHYSICAL STATE:	Liquid
BUFFER:	1X PBS containing 0.1% SDS and 0.02% NaN ₃
STORAGE CONDITIONS:	Store in working aliquots at -70 °C. Avoid freeze/thaw cycles. When working with proteins care should be taken to keep recombinant protein at a cool and stable temperature.

OFFICIAL SYMBOL:	ENDO G
ALTERNATE NAMES:	EndoG Antibody : Endo G
ACCESSION NO.:	Q14249
PROTEIN GI NO.:	24638471
GENE ID:	2021

Background and References

BACKGROUND:	<p>The fragmentation of nuclear DNA is a hallmark of apoptotic cell death. The activities of caspase and nuclease are involved in the DNA fragmentation. Caspase-activated deoxyribo-nuclease (CAD), also termed DNA fragmentation factor (DFF40), is one such nuclease, and is capable of inducing DNA fragmentation and chromatin condensation after cleavage by caspase-3 of its inhibitor ICAD/DFF45. Caspase and CAD independent DNA fragmentation also exists. Recent studies demonstrated that another nuclease, endonuclease G (EndoG), is specifically activated by apoptotic stimuli and is able to induce nucleosomal fragmentation of DNA independently of caspase and DFF/CAD (1-3). EndoG is a mitochondrion-specific nuclease that translocates to the nucleus and cleaves chromatin DNA during apoptosis. The homologue of mammalian EndoG is the first mitochondrial protein identified to be involved in apoptosis in <i>C. elegans</i> (2). EndoG also cleaves DNA in vitro (4).</p>
REFERENCES:	<p>1) Li LY, Luo X, Wang X. Endonuclease G is an apoptotic DNase when released from mitochondria. <i>Nature</i> 2001; 412:95-9.</p> <p>2) Parrish J, Li L, Klotz K, et al. Mitochondrial endonuclease G is important for apoptosis in <i>C. elegans</i>. <i>Nature</i> 2001; 412:90-4</p> <p>3) Hengartner MO. Apoptosis. DNA destroyers. <i>Nature</i> 2001; 412:27, 29.</p> <p>4) Widlak P, Li LY, Wang X, et al. Action of recombinant human apoptotic endonuclease G on naked DNA and chromatin substrates: cooperation with exonuclease and DNase I. <i>J. Biol. Chem.</i> 2001; 276:48404-9.</p>

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