

EndoG Polyclonal Antibody

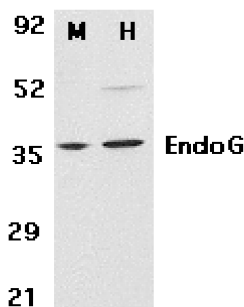
Product Specifications	
Catalog Number:	905-220
Host:	Rabbit
Species Reactivity:	Human, mouse, and rat
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	WB: 1 to 2 µg/mL IHC: 15 µg/mL
Predicted m.w.:	35 kDa
Concentration:	See product label
Purification:	Peptide Affinity
Format:	PBS, 0.02% sodium azide
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at -20°C
Immunogen:	Synthetic peptide derived from sequence near the amino terminus of human EndoG
Related Products:	
905-201	DFF40/CAD (IN) Polyclonal Antibody
APP-350	DFF40/CAD Polyclonal Antibody
EKS-350	DNA Damage ELISA Kit
900-166	Comet Assay
900-167	DePsipher Assay

Background:

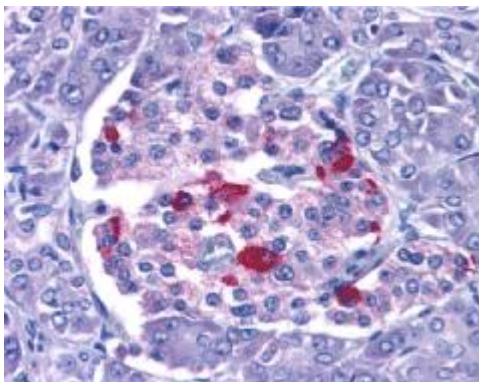
The fragmentation of nuclear DNA is a hallmark of apoptotic cell death. The activities of caspase and nuclease are involved in DNA fragmentation. Caspase-activated deoxyribonuclease (CAD), also termed DNA fragmentation factor (DFF40), is one such nuclease, and is capable of inducing DNA fragmentation 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/CAD¹⁻². 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 identified mitochondrial protein involved in apoptosis in *C. elegans*². EndoG also cleaves DNA *in vitro*⁴.

References:

1. Li, L.Y., *et al.* (2001) *Nature* **412**, 95-99.
2. Parrish, J., *et al.* (2001) *Nature* **412**, 90-94.
3. Hengartner, M.O. (2001) *Nature* **412**, 27, 29.
4. Widlak, P. *et al.* (2001) *J Biol Chem.* **276**, 48404-48409.
5. Tiranti, V., *et al.* (1995) *Genomics* **25**, 559-564.



Western blot analysis of mouse (M) 3T3 and human (H) HepG2 cell lysates with EndoG polyclonal antibody at 2 µg/mL



Immunohistochemistry of human pancreas stained with EndoG polyclonal antibody at 15 µg/mL

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