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# DNASE1L3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13885a

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | Q13609 |
| **Other Accession** | NP_004935.1 |
| **Reactivity** | Human, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB34002 |
| **Calculated MW** | 35504 |
| **Antigen Region** | 14-43 |

## Additional Information

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| **Gene ID** | 1776 |
| **Other Names** | Deoxyribonuclease gamma, DNase gamma, 3121-, DNase I homolog protein DHP2, Deoxyribonuclease I-like 3, DNase I-like 3, Liver and spleen DNase, LS-DNase, LSD, DNASE1L3, DHP2, DNAS1L3 |
| **Target/Specificity** | This DNASE1L3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 14-43 amino acids from the N-terminal region of human DNASE1L3. |
| **Dilution** | WB~~1:1000 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | DNASE1L3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | DNASE1L3 ( HGNC:2959) |
| **Synonyms** | DHP2, DNAS1L3 |

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| **Function** | Has DNA hydrolytic activity. Is capable of both single- and double-stranded DNA cleavage, producing DNA fragments with 3'-OH ends (By similarity). Can cleave chromatin to nucleosomal units and cleaves nucleosomal and liposome-coated DNA (PubMed:10807908, PubMed:14646506, PubMed:27293190, PubMed:9070308, PubMed:9714828). Acts in internucleosomal DNA fragmentation (INDF) during apoptosis and necrosis (PubMed:23229555, PubMed:24312463). The role in apoptosis includes myogenic and neuronal differentiation, and BCR-mediated clonal deletion of self-reactive B cells (By similarity). Is active on chromatin in apoptotic cell-derived membrane-coated microparticles and thus suppresses anti-DNA autoimmunity (PubMed:27293190). Together with DNASE1, plays a key role in degrading neutrophil extracellular traps (NETs) (By similarity). NETs are mainly composed of DNA fibers and are released by neutrophils to bind pathogens during inflammation (By similarity). Degradation of intravascular NETs by DNASE1 and DNASE1L3 is required to prevent formation of clots that obstruct blood vessels and cause organ damage following inflammation (By similarity). |
| **Cellular Location** | Nucleus. Endoplasmic reticulum. Secreted Note=Translocates from the endoplasmic reticulum to the nucleus during apoptosis (PubMed:23229555). Contradictory reports exist about the subcellular localization under normal physiological conditions. Under conditions of cell death, may diffuse and/or be actively transported to the nucleus. {ECO:0000269\|PubMed:23229555, ECO:0000305} |
| **Tissue Location** | Liver and spleen. |

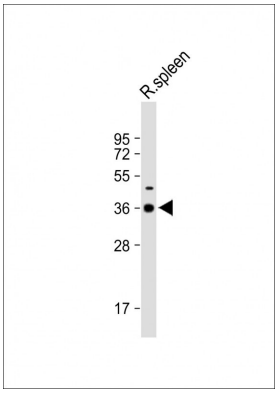
## Background

This gene encodes a member of the DNase family. The protein hydrolyzes DNA, is not inhibited by actin, and mediates the breakdown of DNA during apoptosis. Alternate transcriptional splice variants of this gene have been observed but have not been thoroughly characterized.

## References


Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Ueki, M., et al. Clin. Chim. Acta 407 (1-2), 20-24 (2009) :
Mizuta, R., et al. Biomed. Res. 30(3):165-170(2009)
Boulares, H., et al. Biochem. Biophys. Res. Commun. 341(2):653-662(2006)
Okamoto, M., et al. Biochem. Biophys. Res. Commun. 327(1):76-83(2005)


## Images




Anti-DNASE1L3 Antibody (N-term) at 1:2000 dilution + Rat spleen lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 36 kDa Blocking/Dilution buffer: 5% NFDM/TBST.