

**DNase II Antibody**  
**Catalog # ASC10045****Specification**

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**DNase II Antibody - Product Information**

|                   |                                                                                                                                                                                                                                                                                                            |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application       | IF, IHC                                                                                                                                                                                                                                                                                                    |
| Primary Accession | <a href="#">O00115</a>                                                                                                                                                                                                                                                                                     |
| Other Accession   | <a href="#">AF047016</a> , <a href="#">1777</a>                                                                                                                                                                                                                                                            |
| Reactivity        | Human                                                                                                                                                                                                                                                                                                      |
| Host              | Rabbit                                                                                                                                                                                                                                                                                                     |
| Clonality         | Polyclonal                                                                                                                                                                                                                                                                                                 |
| Isotype           | IgG                                                                                                                                                                                                                                                                                                        |
| Calculated MW     | Aprox: 40 kDa KDa                                                                                                                                                                                                                                                                                          |
| Application Notes | DNase II antibody can be used for detection of DNase II expression by Western blot at 0.5 µg/mL. An approximate 40 kDa band can be detected, which represents the pro-enzyme of DNase II. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 5 µg/mL. |

**DNase II Antibody - Additional Information**Gene ID **1777****Other Names**

DNase II Antibody: DNL, DNL2, DNASE2A, Deoxyribonuclease-2-alpha, Acid DNase, DNase II alpha, deoxyribonuclease II, lysosomal

**Target/Specificity**

DNase II antibody was raised against a 14 amino acid peptide near the carboxy terminus of human DNase II. &lt;br&gt;&lt;br&gt;The immunogen is located within the last 50 amino acids of DNase II.

**Reconstitution & Storage**

DNase II antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

DNase II Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**DNase II Antibody - Protein Information****Name** DNASE2**Synonyms** DNASE2A, DNL2**Function**

Hydrolyzes DNA under acidic conditions with a preference for double-stranded DNA. Plays a major role in the clearance of nucleic acids generated through apoptosis, hence preventing autoinflammation (PubMed: [29259162](http://www.uniprot.org/citations/29259162), PubMed: [31775019](http://www.uniprot.org/citations/31775019)). Necessary for proper fetal development and for definitive erythropoiesis in fetal liver and bone marrow, where it degrades nuclear DNA expelled from erythroid precursor cells (PubMed: [29259162](http://www.uniprot.org/citations/29259162)).

**Cellular Location**

Lysosome.

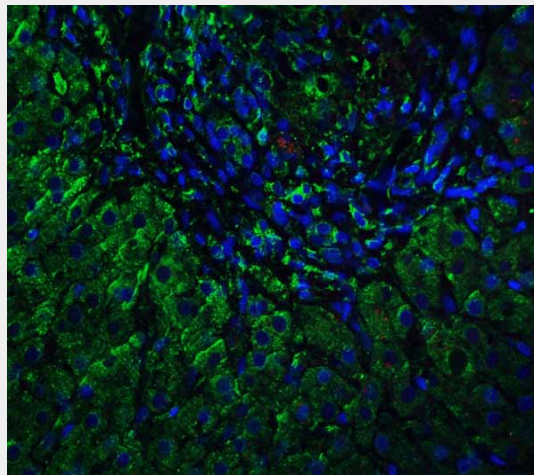
**Tissue Location**

Expressed in monocytes/macrophages (at protein level).

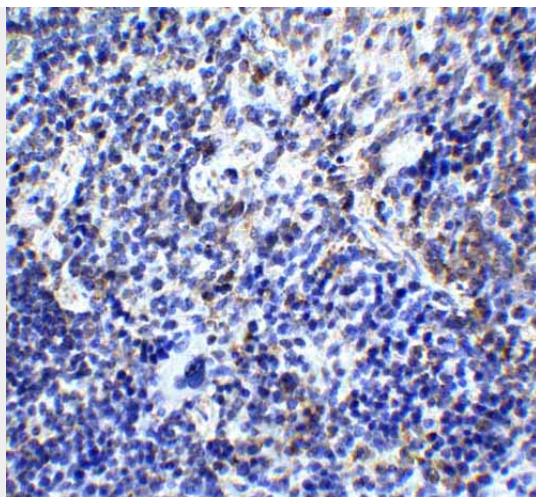
**DNase II Antibody - Protocols**

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](#)

**DNase II Antibody - Images**

Immunofluorescence of VPS39 in human liver tissue with VPS39 antibody at 5 µg/ml.



Immunohistochemistry of TLR9 in mouse spleen tissue with TLR9 antibody at 5 µg/mL.

### **DNase II Antibody - Background**

DNase II Antibody: Apoptosis is characterized by several morphological nuclear changes including chromatin condensation and nuclear fragmentation. These changes are triggered by the activation of members of caspase family, caspase activated DNase, and several novel proteins including AIF and Acinus. DNase II causes both chromatin condensation and DNA fragmentation. The genes encoding human, porcine, and murine DNase II have been cloned. The DNase II gene encodes a 40 kDa proenzyme. The mature enzyme consists of two non-identical subunits, the 32 kDa (alpha) and 12 kDa (beta) chains, generated by proteolytic processing. Overexpression of DNase II induces chromatin condensation. DNase II is ubiquitously expressed in human tissues.

### **DNase II Antibody - References**

Zamzami N, Kroemer G. Condensed matter in cell death. *Nature* 1999;401:127-8  
Yasuda T, Takeshita H, Iida R, Nakajima T, Hosomi O, Nakashima Y, Kishi K. Molecular cloning of the cDNA encoding human deoxyribonuclease II. *J Biol Chem* 1998;273:2610-6  
Krieser RJ, Eastman A. The cloning and expression of human deoxyribonuclease II. A possible role in apoptosis. *J Biol Chem* 1998;273:30909-14  
Shiokawa D, Tanuma S. Cloning of cDNAs encoding porcine and human DNase II. *Biochem Biophys Res Commun* 1998;247:864-9