

Product Specification Sheet

**Human Deoxyribonuclease II (Dnase II) Antibodies**

<b>Cat # DNASE21-P</b>	Human DNase II Control peptide # 1	<b>SIZE:</b> 100 ug
<b>Cat # DNASE21-S</b>	Rabbit Anti-Human DNase II antiserum # 1	<b>SIZE:</b> 100 ul
<b>Cat # DNASE21-A</b>	Rabbit Anti-Human DNase II IgG # 1, aff pure	<b>SIZE:</b> 100 ug

**Deoxyribonuclease II (Dnase II, EC.3.1.22.1)** is one of the two Dnase present in mammalian tissues and biological fluids. Dnase II hydrolyzes DNA to 3'-phosphoryl oligonucleotides under acidic conditions. Dnase II is also known as "acid Dnase". It has preference of for dsDNA. Dnase II has been implicated in internucleosomal cleavage of chromatin to generate DNA fragments or ladder, a hallmark of apoptosis. Dnase II (mouse 353-aa; human 360-aa, chromosome 19p13.2-q13.4) is a lysosomal enzyme present in most tissues. Dnase II is synthesized as a pro-enzyme (signal peptide 1-16 aa, propeptide region of 91-aa, and 253-aa mature protein (110-353 aa) and processed to produce active enzyme containing 2-chains of ~32 and 12 kDa. Dnase II has no significant sequence homology with Dnase I.

**Source of Antigen and Antibodies**

<b>Antigen</b>	A 14-aa peptide (designated <b>DNASE21-P</b> , control/blocking peptide) near the C-terminus of human Dnase II (1) was synthesized, coupled to KLH
<b>Ab Host/type</b>	Rabbit, Polyclonal antiserum # <b>DNASE21-S</b> and IgG, purified over antigen-agarose (Cat # <b>DNASE21-A</b> )
<b>2-Ab</b>	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
<b>-ve control IgG</b>	Cat # 20009-1, Rabbit (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

**Form & Storage of Antibodies/Peptide Control**

**Antiserum (unpurified)**  
100ul solution lyophilized powder  
Supplied 0.05% azide, **Reconstitute** powder in 100 ul PBS

**Affinity pure IgG**  
100 ug/100ul solution lyophilized powder  
Supplied in **Buffer:** PBS+0.1% BSA  
**Reconstitute powder** in PBS at 1mg/ml

**Control/blocking peptide**  
100 ug/100 ul solution lyophilized powder  
Supplied in **Buffer:** PBS pH 7.5,  
**Reconstitute powder** in PBS at 1 mg/ml.

**Storage**

**Short-term:** unopened, undiluted liquid vials at -20°C and powder at 4°C or -20°C.

**Long-term:** at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20°C or below.

**Shipping:** 4°C for solutions and room temp for powder

**Recommended Usage**

**ELISA** (1:10-50K; using 50-100 ng control peptide/well).

**Histochemistry & Immunofluorescence:** Not tested.

**Specificity & Cross-reactivity**

The DNASE21-P peptide sequence is not well conserved in mouse Dnase II. We recommend the use of DNASE22-A for the study of mouse Dnase II. DNASE21-P has no significant sequence homology with other lysosomal enzymes. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (detailed protocol is available at the web site).

**General References:** (1) Yasuda T et al (1998) JBC 273, 2610-2616; Barker KP et al (1998) Gene 215, 281-289; Shilokawa D et al (1998) BBRC 247, 864-869; Yasuda T et al (1998) Ann. Hum. Genet. 62, 299-305;

\*This product is for In vitro research use only.

**Related material available from ADI**

Antibodies to MGMT, hNTH, DNase, APE etc are available.

Anti-Rabbit IgG-HRP Conjugate and ECL Reagents

**Western Blot Recycling Kit (Strips blots in 5 minutes)** and re-use the same blot with multiple antibodies

DNASE21-S-A-P 71205A

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