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DNase gamma Rabbit pAb

Catalog # AP97522

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q13609
Other Accession	Q13609
Host	Rabbit
Clonality	Polyclonal
Calculated MW	35504
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human DNase gamma
Epitope Specificity	71-170/305
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the DNase I family.
DISEASE	Defects in DNASE1L3 are the cause of systemic lupus erythematosus type 16 (SLEB16) [MIM:614420]. A rare autosomal recessive form of systemic lupus erythematosus with childhood onset, characterized by high frequency of anti-neutrophil cytoplasmic antibodies and lupus nephritis. Systemic lupus erythematosus is a chronic, relapsing, inflammatory, and often febrile multisystemic disorder of connective tissue, characterized principally by involvement of the skin, joints, kidneys and serosal membranes. It is of unknown etiology, but is thought to represent a failure of the regulatory mechanisms of the autoimmune system. The disease is marked by a wide range of system dysfunctions, an elevated erythrocyte sedimentation rate, and the formation of LE cells in the blood or bone marrow.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Has DNA hydrolytic activity. Does not bind to actin. Cleaves chromatin DNA to nucleosomal units.

Additional Information

Gene ID	1776
Other Names	D3; DHP2; DNAS1L3; LSD; SLEB16; DNasegamma; DNSL3_HUMAN; DNASE1L3; DNase gamma; DNase I homolog protein DHP2; Deoxyribonuclease I-like 3 (DNase I-like 3); Liver and spleen DNase (LS-DNase | LSD); 3.1.21.-; DNSL3_MOUSE; DNSL3_RAT; DNaseY; deoxyribonuclease 1L3; deoxyribonuclease I like 3; deoxyribonuclease 1 like 3; LS-DNase
Dilution	IHC-P=1:400-800,IHC-F=1:400-800,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

Protein Information

Name	DNASE1L3 (HGNC:2959)
Synonyms	DHP2, DNAS1L3
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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.