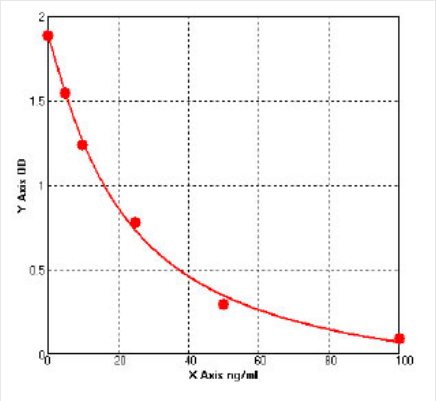
Deoxyribonuclease 1 (DNASE I) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Deoxyribonuclease I (Dnase I), ELISA Kit
Full Product Name	Human Deoxyribonuclease I ELISA Kit
Product Gene Name	Dnase I elisa kit
Species Reactivity	Human
Assay Type	Quantitative Competitive
Samples	Serum, plasma, cell culture supernatants, body fluid and tissue homogenate
Sensitivity	1.0 ng/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of DNase I. No significant cross-reactivity or interference between DNase I and analogues was observed. NOTE: Limited by current skills and knowledge, it is impossible for us to complete the cross-reactivity detection between DNase I and all the analogues, therefore, cross reaction may still exist in some cases.
Preparation and Storage	Store all reagents at 2-8 degree C.
Molecular Weight	31,434 Da
OMIM	gene 152700
Sample Preparation	We suggest pre-experimenting with neat (undiluted) samples, 1:2 or 1:4 dilutions. Please avoid diluting your samples more than 1:10 as it would exceed the dilution limit set for this kit. If the expected concentration of the target is beyond the detection range of the kit, please contact our technical support team
Product Categories/Family for Dnase I elisa kit	Cell Biology
ISO Certification	Manufactured in an ISO 13485:2016 Certified Laboratory.
Related Product Information for Dnase I elisa kit	Principle of the Assay: DNase I ELISA kit applies the competitive enzyme immunoassay technique utilizing a polyclonal anti-DNase I antibody and an DNase I-HRP conjugate. The assay sample and buffer are incubated together with DNase I-HRP conjugate in pre-coated plate for one hour. After the incubation period, the wells are decanted and washed five times. The wells are then incubated with a substrate for HRP enzyme. The product of the enzyme-substrate reaction forms a blue colored complex. Finally, a stop solution is added to stop the reaction, which will then turn the solution yellow. The intensity of color is measured spectrophotometrically at 450nm in a microplate reader. The intensity of the color is inversely proportional to the DNase I concentration since DNase I from samples and DNase I-HRP conjugate compete for the anti-DNase I antibody binding site. Since the number of sites is limited, as more sites are occupied by DNase I from the sample, fewer sites are left to bind DNase I-HRP conjugate. A standard curve is plotted relating the intensity of the color (O.D.) to the concentration of standards. The DNase I concentration in each sample is interpolated from this standard curve. Intended Uses: This DNase I ELISA kit is a 1.5 hour solid-phase ELISA designed for the quantitative determination of Human DNase I. This ELISA kit for research use only, not for therapeutic or test applications!
Other Notes	Small volumes of Dnase I elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for Dnase I purchase	MBS729766 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Deoxyribonuclease I (Dnase I) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing Dnase I. The ELISA analytical biochemical technique of the MBS729766 kit is based on Dnase I antibody-Dnase I antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect Dnase I antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, Dnase I. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of Dnase I elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Dnase I. It may not necessarily be applicable to this product.

NCBI GI #	21361254
NCBI GeneID	1773
NCBI Accession #	NP_005214.2
UniProt Secondary Accession #	Q14UU9; Q14UV0
UniProt Related Accession #	P24855
GenBank Nucleotide #	NM_005223.3
NCBI Official Full Name	deoxyribonuclease-1
NCBI Official Synonym Full Names	deoxyribonuclease I
NCBI Official Symbol	DNASE1
NCBI Official Synonym Symbols	DNL1; DRNI
UniProt Protein Name	Deoxyribonuclease-1
UniProt Synonym Protein Names	Deoxyribonuclease I; DNase I; INN: Dornase alfa
Protein Family	Deoxyribonuclease
UniProt Gene Name	DNASE1
UniProt Synonym Gene Names	DNL1; DRNI; DNase I
UniProt Entry Name	DNAS1_HUMAN
NCBI Protein Information	deoxyribonuclease-1; Dornase alfa; DNase I, lysosomal; human urine deoxyribonuclease I

NCBI Summary for Dnase I	This gene encodes a member of the DNase family. This protein is stored in the zymogen granules of the nuclear envelope and functions by cleaving DNA in an endonucleolytic manner. At least six autosomal codominant alleles have been characterized, DNASE1*1 through DNASE1*6, and the sequence of DNASE1*2 represented in this record. Mutations in this gene have been associated with systemic lupus erythematosus (SLE), an autoimmune disease. A recombinant form of this protein is used to treat the one of the symptoms of cystic fibrosis by hydrolyzing the extracellular DNA in sputum and reducing its viscosity. Alternate transcriptional splice variants of this gene have been observed but have not been thoroughly characterized. [provided by RefSeq, Jul 2008]
UniProt Comments for Dnase I	DNASE1: Among other functions, seems to be involved in cell death by apoptosis. Binds specifically to G-actin and blocks actin polymerization. Defects in DNASE1 are a cause of susceptibility to systemic lupus erythematosus (SLE). A chronic, inflammatory and often febrile multisystemic disorder of connective tissue. It affects principally the skin, joints, kidneys and serosal membranes. It is thought to represent a failure of the regulatory mechanisms of the autoimmune system. Belongs to the DNase I family. Protein type: Secreted; EC 3.1.21.1; Secreted, signal peptide; Motility/polarity/chemotaxis; Deoxyribonuclease Chromosomal Location of Human Ortholog: 16p13.3 Cellular Component: extracellular region; nuclear envelope; nucleus Molecular Function: protein binding; deoxyribonuclease I activity; actin binding; endodeoxyribonuclease activity Biological Process: apoptosis; DNA catabolic process, endonucleolytic Disease: Systemic Lupus Erythematosus
Research Articles on Dnase I	**1.** DNase I activity in systemic lupus erythematosus patients was lower than in healthy controls
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/dnase-i-human-elisa-kits/deoxyribonuclease-i/729766