

Deoxyribonuclease I (DNASE1) Active Protein | DNASE1 active protein

Active Deoxyribonuclease I (DNASE1)

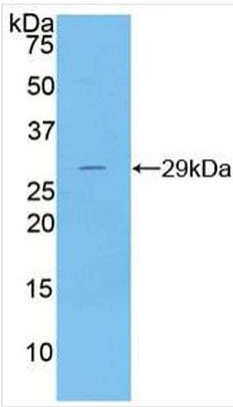
CATALOG # AAA148188	HOST E. coli	REACTIVITY Homo sapiens (Human)	APPLICATIONS Activity Assay, Cell Culture
-------------------------------	------------------------	---	---

PRODUCT SYNONYMS

Deoxyribonuclease I (DNASE1); Active Deoxyribonuclease I (DNASE1); DNaseI; DNL1; DRNI; DNase-I; Dornase alfa; DNASE1 active protein

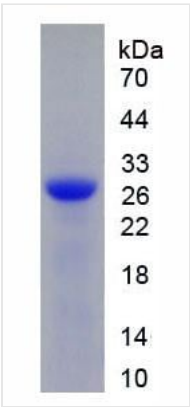
PRODUCT SPECIFICATIONS

Host	E. coli
Reactivity	Homo sapiens (Human)
Purity/Purification	>92%
Form/Format	PBS, pH7.4, containing 0.01% SKL, 5% Trehalose .
Concentration	Original Concentration: 450ug/mL (varies by lot)
Applicable Applications for DNASE1 active protein	Activity Assay, Cell Culture
Source	Prokaryotic expression.
Residues	Gly19~Ala259
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	5.0
Usage	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.



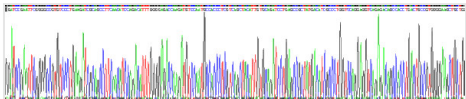
WB (Western Blot)

Western BlotSample: Recombinant DNASE1, Human;Antibody: Rabbit Anti-Human DNASE1 Ab



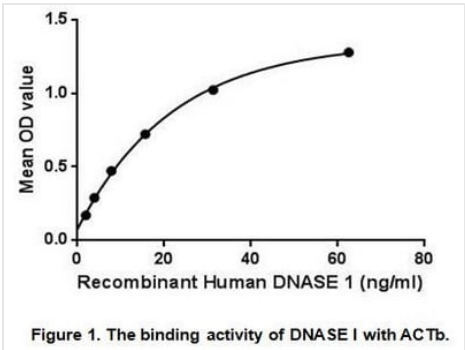
SDS_PAGE

SDS-PAGESample: Active recombinant DNASE1, Human



Gene Sequencing

Gene Sequencing (extract)



Bioactivity

Deoxyribonuclease I (usually called DNase I) is a nonspecific endonuclease that cleaves DNA preferentially at phosphodiester linkages adjacent to a pyrimidine nucleotide, yielding 5'-phosphate-terminated polynucleotides with a free hydroxyl group on position 3', on average producing tetranucleotides. It acts on single-stranded DNA, double-stranded DNA, and chromatin. DNase I can be activated by bivalent metals such as Mg²⁺ and Ca²⁺. This endonuclease enzyme is common reagents used in biochemical methods requiring digestion of DNA and recovery of RNA, or where DNA is to be removed without affecting structural proteins or enzymes. For example, DNase I is frequently used to remove template DNA following in vitro transcription, and to remove contaminating DNA in total RNA preparations (especially those from transfected cells that may contain plasmid DNA), used for ribonuclease protection assays, cDNA library construction, and RT-PCR. Besides, Actin Beta (ACTb) has been identified as an interactor of DNase I, thus a binding ELISA assay was conducted to detect the interaction of recombinant human DNase I and recombinant human ACTb. Briefly, DNase I were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to ACTb-coated microtiter wells and incubated for 2h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-DNase I pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of of DNase I and ACTb was shown in Figure 1, and this effect was in a dose dependent manner.

LSRYDIALVOEVRDHLTAVGKLLDNLNODAPDTYHYVVSSEPLGRNSYKE
RYLFVYRDPDVSAYDSYYDDGCEPCGNDITNREPAIVRFFSRFTVREF
AIVPLHAAPGDAVAETDALDYLDVQEKWLEDVNLMGDFNAGCSYVRP
SQWSSIRLWTSPTFQWLIPDSADTTATPTHCAYDRIVVAGMLLRGAVVPD
SALPFNFQA

Sequence

ADDITIONAL INFORMATION

Product Categories/Family for DNASE1 active protein Enzyme & Kinase; Developmental science

NCBI AND UNIPROT INFORMATION

NCBI GI #	21361254
NCBI GeneID	1773
NCBI Accession #	NP_005214.2
NCBI GenBank Nucleotide #	NM_005223.3
UniProt Accession #	P24855; Q14UU9; Q14UV0; B4DV35
Molecular Weight	Predicted Molecular Mass: 28.3kDa Accurate Molecular Mass: 28kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	deoxyribonuclease-1
NCBI Official Synonym Full Names	deoxyribonuclease 1
NCBI Official Symbol	DNASE1
NCBI Official Synonym Symbols	DNL1; DRNI
NCBI Protein Information	deoxyribonuclease-1
UniProt Protein Name	Deoxyribonuclease-1
UniProt Gene Name	DNASE1
UniProt Synonym Gene Names	DNL1; DRNI; DNase I

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://www.aaabiotech.com/e-coli-homo-sapiens-human-active-protein/deoxyribonuclease-i-dnase1/148188>