

DNase I Active Protein | DNASE1 active protein

DNase I Protein, Human, Recombinant (His Tag)

CATALOG #
AAA258026

HOST
HEK293 Cells

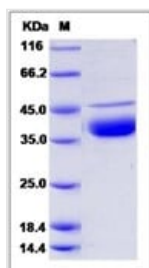
PRODUCT SYNONYMS

DNase I; DNase I Protein; Human; Recombinant (His Tag); Human DNASE1/Deoxyribonuclease I/DNL1 Protein (His Tag); DNL1 Protein; DRNI Protein; deoxyribonuclease I; DNASE1 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>85% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4, 5% trehalose, 5% mannitol and 0.01% Tween80
Sequence	Met1-Lys28 2
Species	Human
Bioactivity	One unit is defined as the amount of DNase I that degrades DNA and causes an increase in absorbance at 260 nm of 0.001/minute at 25°C, pH5.0. The specific activity is >5000unit/mg.
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Leu 23
Tag	C-His
Protein Construction	A DNA sequence encoding the human DNASE1 (P24855)(Met1-Lys282) was expressed with a polyhistidine tag at the C-terminus.
Reconstitution	It is recommended that sterile water (400ul) be added to the vial to prepare a stock solution of 0.25mg/mL. Concentration is measured by UV
Stability	Samples are stable for up to 12 months from date of receipt at -70°C
Preparation and Storage	Store under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for DNASE1 active protein	Background: DNase1, also known as deoxyribonuclease I and DNL1, is a member of the DNase family. DNaseI is a nuclease 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. DNaseI binds to the cytoskeletal protein actin. It binds actin monomers with very high (sub-nanomolar) affinity and actin polymers with lower affinity. Mutations in DNase1 gene have been associated with systemic lupus erythematosus (SLE), an autoimmune disease. DNase1 is used to treat the one of the symptoms of cystic fibrosis by hydrolyzing the extracellular DNA in sputum and reducing its viscosity.
References	Shak S. et al., 1991, Proc Natl Acad Sci. 87 (23): 9188-92. Yasutomo K. et al., 2001, Nat Genet. 28 (4): 313-4. Hakkim A. et al., 2010, Proc Natl Acad Sci. 107 (21): 9813-8.

NCBI AND UNIPROT INFORMATION

NCBI GI #	118919
NCBI GeneID	1773
UniProt Accession #	P24855; Q14UU9; Q14UV0; B4DV35
Molecular Weight	The recombinant human DNASE1 consists of 271 amino acids and predicts a molecular mass of 30.7 kDa. It migrates as an approximately 37 kDa band in SDS-PAGE under reducing conditions.
NCBI Official Full Name	Deoxyribonuclease-1
NCBI Official Synonym Full Names	deoxyribonuclease I
NCBI Official Symbol	DNASE1
NCBI Official Synonym Symbols	DNL1; DRNI
NCBI Protein Information	deoxyribonuclease-1; Dornase alfa; DNase I, lysosomal; human urine deoxyribonuclease I
UniProt Protein Name	Deoxyribonuclease-1
UniProt Gene Name	DNASE1
UniProt Synonym Gene Names	DNL1; DRNI; DNase I
UniProt Entry Name	DNAS1_HUMAN

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.