

Recombinant Human DNASE1 therapeutic protein(Dornase alfa)

Cat. No. DNASE1-P001H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Deoxyribonuclease I therapeutic protein is a biosynthetic form of human deoxyribonuclease I (DNase I) enzyme. It is produced in genetically modified Chinese hamster ovary (CHO) cells using recombinant DNA technology. The 260-amino acid sequence of dornase alfa is identical to the endogenous human enzyme.
Species	Human
Source	CHO
ProteinLength	260 aa
Description	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. The expression product is the active ingredient of Pulmozyme and Viscozyme.

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Molecular Mass	29.2kDa
AA Sequence	LKIAAFNIQTFGETKMSNATLVSYIVQILSRVDIALVQEVDRSHLTAVGKLLDNLNQDA PDTYHYVVSEPL GRNSYKERYLFVYRPDQVSAVDSYDDGCEPCGNDFNREPA IVRFFSRFTEVREFAIVPLHAAPGDAVA EIDALYDVYLDVQEKWGLEDMMLMGDFNA GCSYVRPSQWSSIRLWTSPTFQWLIPDSADTTATPTHCAAYDR IVVAGMLLRGAVVP DSALPFNFQAAAYGLSDQLAQAI SDHYPVEVMLK
Endotoxin	< 1.0 EU per µg of the protein
Purity	>95%
Storage	Can be stored at +4 centigrade short term (1-2weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoidrepeated freezing and thawing cycles.
Alias	DNASE1; DNL1; DRNI; Dornase alfa

GENE INFORMATION

Gene Name	DNASE1 deoxyribonuclease I [Homo sapiens]
Official Symbol	DNASE1
Synonyms	DNASE1; deoxyribonuclease I; DNL1; deoxyribonuclease-1; Dornase alfa; DNase I, lysosomal; human urine deoxyribonuclease I; DRNI; FLJ38093; FLJ44902; DKFZp686H0155;
Gene ID	1773
mRNA Refseq	NM_005223

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Protein Refseq	NP_005214
MIM	125505
UniProt ID	P24855
Chromosome Location	16p13.3
Function	actin binding; deoxyribonuclease I activity; deoxyribonuclease activity; endonuclease activity; hydrolase activity; protein binding;

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