

Recombinant Human Deoxyribonuclease 1/DNASE1 protein (His tag)

Catalog No. PKSH030557

Note: Centrifuge before opening to ensure complete recovery of vial contents.

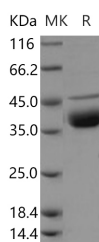
Description

Synonyms	Deoxyribonuclease-1, EC 3.1.21.1, Deoxyribonuclease I, DNase I, Dornase alfa, DNASE1, DNL1, DRNI
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-Lys282
Accession	P24855
Calculated Molecular Weight	30.7 kDa
Observed molecular weight	40 kDa
Tag	C-His
Bioactivity	Testing in progress

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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Background

DNaseI, also known as deoxyribonuclease I and DNL1, is a member of the DNase family. DNaseI is a nuclease that

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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. DNaseI is used to treat the one of the symptoms of cystic fibrosis by hydrolyzing the extracellular DNA in sputum and reducing its viscosity.