Recombinant Human Deoxyribonuclease 1/DNASE1 Protein (His Tag)

Catalog Number: PDMH100102

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

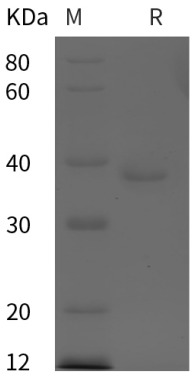
Description

Species	Human
Source	HEK293 Cells-derived Human Deoxyribonuclease 1;DNASE1 protein Met1-Lys282, with an C-terminal His
Calculated MW	30.9 kDa
Observed MW	40 kDa
Accession	P24855
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU/mg of the protein as determined by the LAL method
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 a 0.2 μm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Human Deoxyribonuclease 1/DNASE1 proteins, 2 μg/lane of Recombinant Human Deoxyribonuclease 1/DNASE1 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 40 kDa.

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.

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