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Product Datasheet

Human DNase I protein, His tag, Unconjugated
GTX00172-PRO

Artikelname	Human DNase I protein, His tag, Unconjugated
Artikelnummer	GTX00172-PRO
Hersteller Artikelnummer	GTX00172-pro
Alternativnummer	GTX00172-PRO-10
Hersteller	GeneTex
Kategorie	Proteine/Peptide
Applikation	FA
Spezies Reaktivität	Human
Konjugation	Unconjugated
NCBI	1773
UniProt	P24855
Puffer	Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose, ProClin 300.
Expression System	E. coli
Formulierung	Lyophilized powder
Sequenz	N-terminal His-Tag, Gly19~Ala259 (NP_005214.2)

Anwendungsbeschreibung	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 diestion 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 contraction, 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 100 µl were then transferred to ACTb-coated microtiter wells and incubated for 2h at 37C. 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 37C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of of DNase I and ACTb was in a dose dependent manner.