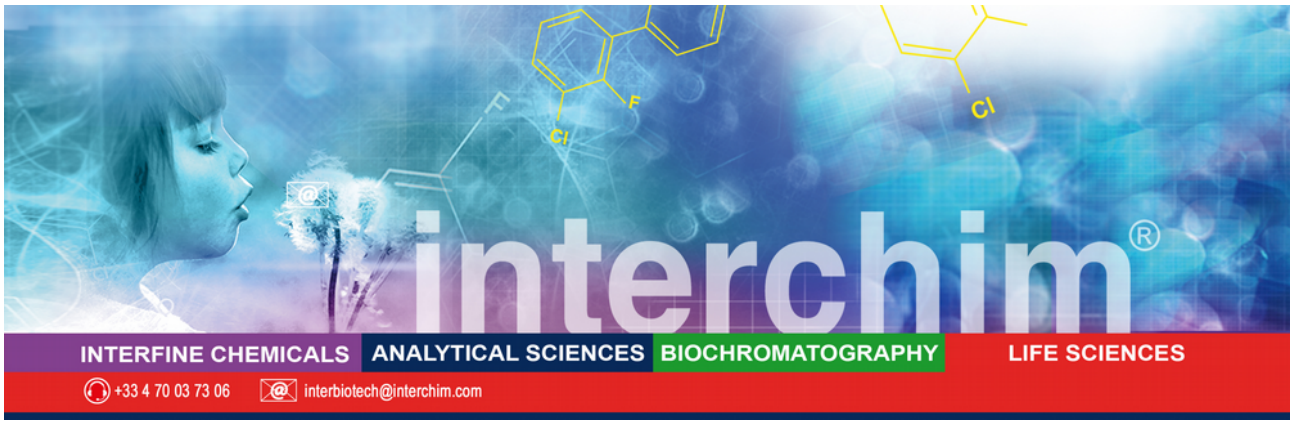
FT-18405



DNase I (RNase-free)

Storage: at -20°C for one year

Description

Deoxyribonuclease I (DNase I) is an endonuclease that degrades doubleand single-strand DNA and chromatin. It functions by hydrolyzing phosphodiester linkages, producing mono and oligonucleotides with a 5'-phosphate and a 3'-hydroxyl group. Ribonuclease has been reduced to non-detectable levels. Its activity depends on Mg^{2+} or Mn^{2+} ion. DNase I with Mg^{2+} cuts randomly double strand DNA at any site, DNase I with Mn^{2+} cuts double strand DNA at the same site to form sticky-end with 1-2 nucleotide or form blunt-end.

Source

purified from bovine pancreas

Molecular Weight

32 kDa (monomer)

Unit Definition

One unit is the amount of enzyme required to completely degrade 1 µg pBR322 plasmid DNA in 10 minutes at 37°C.

Activity Test Condition

40 mM Tris-HCl (pH8.0), 10 mM $MgSO_4$, 1 mM $CaCl_2$, 1 µg of pBR322 DNA

Purity

Free of other DNA endonucleases and exonucleases, free of RNase

Storage Buffer

50 mM Tris-acetate (pH 7.5), 10 mM CaCl2, 50% (v/v)glycerol

10×Reaction Buffer

100 mM Tris-HCl (pH7.5 at 25 °C), 100 mM $MgCl_2$, 1 mM $CaCl_2$

Components

DNase I (3 units/µl)	1500 units
10×DNase I Reaction Buffer	2×1 ml
200 mM EDTA	1 ml

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