DNase I
Cat #: EN-M-003-100

Description

MOLEQULE-ON DNase I is a RNase free endonuclease that cleave the phosphodiester bonds in single and double stranded DNA. The activity of enzyme depends on the presence of Ca^{2+}, Mg^{2+} or Mn^{2+} ions. It is used in DNA free RNA preparation which is used for RT-PCR and real time PCR. It is also be used in the removal of DNA template for in vitro transcription.

Preparation & Protocol

Dissolve 5mg of DNase I enzyme in 5ml of 0.15M Sodium chloride (NaCl). This will give 1mg/ml concentration of reconstituted DNase I.

The recipe of working buffer of DNase I is given below;

10X Reaction Buffer contains 100 mM Tris-HCl (pH 7.5), 25 mM $MgCl_2$, 1 mM $CaCl_2$ and 50 mM EDTA.
Alternatively, in the 50ul of RNA mixture, add 1ul of DNase I solution (1mg/ml) and 5ul of $MgCl_2$ (1M).
For the efficient DNA degradation in RNA preparation, 1ul of DNase I (1mg/ml) should be added per 1-5 ug of RNA sample.
After addition of DNase I, the reaction mixture should be incubated for 10 - 20 minutes at 25-37°C.
DNase I loses activity by heating to 65°C for less than 10 minutes.

Storage and Stability

DNase I as supplied retains activity for at least three years when stored at –20 °C.
Solutions of DNase I (10 mg/ml) in 0.15 M NaCl may lose <10% of its activity when stored for a week in aliquots at –20 °C

For laboratory use only. Not for drug, household or other uses.