Datasheet

DNase I solution,
Cat.-No: 408-010, 10000 u
(RNase free, Molecular Biology Grade)

Applications:
- Degradation of DNA template in transcription reactions
- Removal of contaminating genomic DNA from RNA samples
- DNase I footprinting
- Nick Translation

Components:
- **DNase solution (10 U/µl):** in 10 mM Tris-HCl (pH 7,5), 2 mM CaCl2, 50% Glycerol (v/v)
- **Reaction buffer (10X):** 10 x 1,5 ml 500 mM Tris-HCl, pH 8.0, 50 mM $MgCl_2$

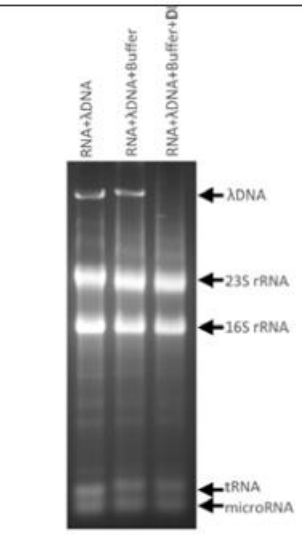
Description:
DNase (RNase-free) is an endonuclease that digests ssDNA, dsDNA and DNA in DNA-RNA complexes. The enzyme activity is strictly dependent on Ca^{2+} and is activated by Mg^{2+} and Mn^{2+} ions.
Enzyme is purified from *P. pastoris* expressing bovine pancreas DNase I gene. DNase I may be used to degrade DNA in applications that are sensitive to the presence of RNases.

Unit definition: One Kunitz unit of DNase I completely degrades 1 µg of plasmid DNA in 10 min at 37°C.

RNase activity: not detected (incubation of RNA transcript with DNase I

Shipping and storage: Shipping on blue ice. Stable at room temperature for up to 7 days.

Stability: 3 years at -20°C



2% agarose gel electrophoresis
All samples were incubated at 30°C
for 60 min, before electrophoresis

Protocol: for "fresh" RNA digestion of 20 µl reaction volume:
1.) Use sterile, RNase free Tubes and Tips
2.) Add RNA: 1 µg
3.) Add 10X reaction buffer: 2 µl
4.) Add DNase: 1-2 U
5.) fill up sterile RNase free water: up to 20 µl
6.) Incubate for 15-20 min @ 25-37°C
7.) Stop the reaction by adding 1µl of 100 mM EDTA (final concentration: 5 mM) and heating up @ 65-75°C for at least 10 min

Note: If EDTA is not added, the RNA will undergo chemical cleavage when heated up

Ordering information:

Cat.-no	Description	Amount
408-010 – 10 U / µl	DNase I (MBG)	10000 U
408-030 – 10 U / µl	DNase I (MBG)	3 x 10000 U

.. a good decision ..

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