Canvax Reagents, S.L.U.
Luis de Mercado Street, 19
47151, Boecillo
Valladolid, Spain.

Tlf: +34 957 348 066
Fax: +34 957 346 217
info@canvaxbiotech.com

www.canvaxbio.com

DATA SHEET

Version: 2
Revision date: 13/03/2023

1. Identification

Product name	**DNAse I** RNase free
Cat. No	EZ0018

2. Description

DNase I, RNase free recombinant, is an endonuclease that cleaves DNA preferentially at phosphodiester linkages adjacent to a pyrimidine nucleotide, to release di-, tri-, and oligonucleotide products (on average producing tetranucleotides) with 5'-phosphorylated and 3'-hydroxylated ends. DNase I acts on single-stranded DNA, double-stranded DNA, RNA-DNA hybrids, and chromatin. DNase I requires bivalent cations (Mg^{2+} and Ca^{2+}) for maximal activity.

3. Composition

Item	Concentration	Quantity
DNAse I	10 mg/ml (>2000 Kunitz units* per mg)	1 mL
10X Reaction Buffer	100 mM Tris-HCl (pH 7.5 at 25°C), 25 mM $MgCl_2$, 1 mM $CaCl_2$	1 mL

*One Kunitzunit is defined as the amount of enzyme required for the complete degradation of 1µg of plasmid DNA in 10 minutes at 37°C .

4. Features

Recombinant Bovine Pancreatic DNase I purified from *E. coli* (29 kDa monomer). RNase-free Supplied with 1 ml of 10x reaction buffer (100 mM Tris-HCl (pH 7.5 at 25°C), 25 mM $MgCl_2$, 1 mM $CaCl_2$).

5. Quality Control

- Functionally tested for digestion of template DNA after *in vitro* transcription.
- Confirmed absence of RNase activity.
- Specific activity has been assayed by degradation of 1 µg of pUC18 in 40 mM Tris-HCl (pH 8.0); 10 mM $MgSO_4$, 1 mM $CaCl_2$.

6. Storage specifications

Storage at –20 °C in a non-frost-free freezer.

7. Applications

- Removal of residual genomic DNA from RNA samples.
- Degradation of DNA template in transcription reactions.
- DNase I footprinting.
- Perform Nick Translation.

Canvax Reagents, S.L.U.
Luis de Mercado Street, 19
47151, Boecillo
Valladolid, Spain.

Tlf: +34 957 348 066
Fax: +34 957 346 217
info@canvaxbiotech.com

www.canvaxbio.com

8. Further information

Product Use Limitations This product is developed, designed and sold exclusively only for research purposes use. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.

Disclaimer The information provided in this Data Sheet is correct to the best of our knowledge and belief at the date of publication. This information is intended only as a guide and should not be taken as a warranty or quality specification. Canvax Reagents S.L.U. shall not be held liable for any damage resulting from handling or from contact with the above product.

DIGESTION OF GENOMIC DNA IN RNA SAMPLES (SUGGESTED PROTOCOL)

1. Add the sample* to be treated in 1x Reaction Buffer to make up final volume of 40 µl.
2. Add 10 µl of DNase I solution (10mg/ml)
3. Incubate the mix at 37ºC for 10-15 minutes.
4. Stop the reaction by adding EDTA to a final concentration of 5 mM and heating to +75 ºC for 10 minutes for complete inactivation of DNase I. If EDTA is not added, the RNA will undergo chemical cleavage when heated.

*Total RNA:10-50 µg.