Masterase
(HL-dsDNase)

Best Choice for dsDNA Removal from RNA & Protein Samples!

NEW PRODUCT

Ideal for procedures where dsDNA presence is undesirable:

- **RNA and protein samples rapid purification,**
- **PCR, qPCR Master Mixes, or other diagnostic kits decontamination.**

→ **Low-temperature activity to protect your RNA or proteins!**

→ **Irreversible inactivation in low temperature (52°C) to secure biological products' integrity!**

blirt Enzymes as you need

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Overview

HL-dsDNase is a 43.3 kDa heat-labile endonuclease, originates from a cold water eukaryotic organism, recombinantly expressed in *Pichia pastoris*. The enzyme displays high specific activity solely towards double-stranded DNA leaving single-stranded DNA or RNA undamaged.

HL-dsDNase characterizes high specific activity and it is easily inactivated by heat treatment in moderate temperatures. It is intended for applications where the presence of dsDNA influences experiments' results in thermo-sensitive applications and is extremaly useful for a rapid and safe digestion of genomic DNA in samples containing RNA or recombinant proteins.

Applications

Digestion of dsDNA (plasmid DNA, genomic DNA, etc.),
- **RNA and protein samples rapid purification,**
- **PCR, qPCR Master Mixes, or other diagnostic kits decontamination.**

Features and advantages

- → **Highly active in the broad temperature range (optimum at 10-47°C),**
- → **Highly active in typical buffer formulations and broad pH range (optimum at 7.0-8.0),**
- → **Inactivation at moderate temperature (15 min. at 52°C, 1 mM DTT),**
- → **The activity towards dsDNA is minimum 1000 times higher than towards ssDNA or RNA.**

Variable / Parameter	Activity Range	Optimum Activity
pH	6.0-10.0	7.0-8.0
Temperature	4-47°C	10-47°C
Mg^{2+}	0-50 mM (ions Ca^{2+} increase the activity)	2-4 mM
Ammonium sulfate	0-100 mM	0-50 mM
NaCl/KCl	0-250 mM	0-100 mM
Imidazole	0-400 mM	0-300 mM
Urea	0-2 M	0-1.0 M
Glycerol	0-50%	0-40%
Triton X-100	0-2%	0-2%
DTT	0-100 mM	0-100 mM
β-merkaptoetanol	0-2.5%	0-1%