

Recover Intact DNA Up to >2 Mb in Length

GELase™ Agarose Gel-Digesting Preparation

GELase Agarose Gel-Digesting Preparation is a unique enzyme solution developed at EPICENTRE for quantitative recovery of intact DNA from low melting point (LMP) agarose gels following electrophoresis in TAE, TBE, MOPS, or phosphate buffers. Excised gel bands can be digested in the above-mentioned buffers, or for higher activity, GELase Buffer may be added to or exchanged with those buffers.

Applications:

Recover high molecular weight nucleic acids from low melting point (LMP) agarose gels for use in:

- Preparation of YAC, BAC, cosmid, and plasmid vectors
- Subcloning from YACs, BACs, and cosmids
- Microinjection
- Size selection of genomic DNA for subsequent cloning
- Restriction mapping
- PCR

Benefits:

- Gentle procedure - purify multi-megabase DNA that is intact and biologically active
- Recoveries of DNA consistently approach 100%
- Protocol requires minimal hands-on time
- High activity - GELase Preparation is more active than other gel-digesting enzymes*
- Cost effective - GELase is priced well below spin column or other gel-digesting methods*

GELase™ Agarose Gel-Digesting Preparation

1 U/ul

G09050-F72	50 U
G09100-F72	100 U
G09200-F72	200 U

Includes GELase™ 50X Reaction Buffer

*One unit of GELase Preparation is equivalent to approximately three units of other gel-digesting enzymes.

Completely Remove Contaminating Chromosomal DNA from your Plasmid, Cosmid, and BAC Vector Preparations

Plasmid-Safe™ ATP-Dependent DNase

Preparations of plasmid, cosmid, and BAC vector preparations are frequently contaminated with fragments of bacterial genomic DNA generated during alkaline lysis. Other purification options, such as spin-columns or even CsCl centrifugation, do not effectively remove these contaminants. Contaminating DNA fragments left behind by these methods ultimately become ligated into your cloning vector, resulting in false positives and high backgrounds.

Plasmid-Safe ATP-Dependent DNase digests linear double-stranded DNA to deoxynucleotides at slightly alkaline pH and, with lower efficiency, closed-circular and linear single-stranded DNA. The enzyme has no activity on nicked or closed-circular dsDNA or supercoiled DNA. Therefore, Plasmid-Safe is ideal as the final purification step for plasmid, cosmid, and BAC vectors (up to 8 kb).

Benefits

- Minimizes the possibility of cloning or sequencing contaminating chromosomal DNA from your plasmid, cosmid, or BAC vector (up to 8 kb).
- Fast and easy protocol with minimal handling time.
- Complete protocols for miniprep, midiprep, and

maxiprep plasmid, cosmid, and BAC DNA purifications using Plasmid-Safe DNase are provided.

- Plasmid-Safe may also have potential uses purifying DNA vaccines.

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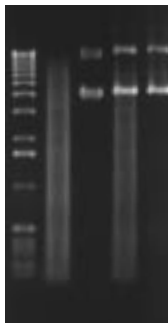


Figure 1. Use of Plasmid-Safe ATP-Dependent DNase to remove contaminating linear DNA from plasmids.

Lane 1, 3 µg of *Sma* I-digested bacterial chromosomal DNA; Lane 2, 500 ng of uncut plasmid DNA; Lane 3, mixture of 3 µg of digested bacterial chromosomal DNA and 500 ng of uncut plasmid before Plasmid-Safe DNase treatment; Lane 4, mixture of chromosomal DNA and plasmid DNA after Plasmid-Safe DNase treatment (incubated with Plasmid-Safe DNase for 30 minutes at 37°C); M, kb ladder.

Plasmid-Safe™ ATP-Dependent DNase

E3101K-F72	10 U/µl	1,000 U
E3105K-F72	10 U/µl	5,000 U
E3110K-F72	10 U/µl	10,000 U

Includes Plasmid-Safe™ 10X Reaction Buffer and 25 mM ATP Solution.