

Plasmid DNA

Increased Yield / Mini Column

HiYield™ Plasmid Mini Kit

HiYield™ Plasmid Mini Kit is designed for rapid isolation of plasmid or cosmid DNA from 1-4 ml of bacterial cultures. The high yield/minicolumn ensures enough DNA for many subsequent applications. The process follows the modified alkaline lysis method. RNase treatment is used to get cleared cell lysate with minimal genomic DNA and RNA contaminants. In the presence of a chaotropic salt, the plasmid DNA in the lysate binds to glass fiber matrix in the spin column. Contaminants are washed with an ethanol wash buffer. In the final step, the purified plasmid DNA is eluted by low salt elution buffer or distilled water. For large scale plasmid purification, we recommend ion exchange based Fast Ion Plasmid Midi/Maxi Kits.

Applications

DNA sequencing, DNA library screening and analysis, Restriction Digestion, Ligation and Transformation

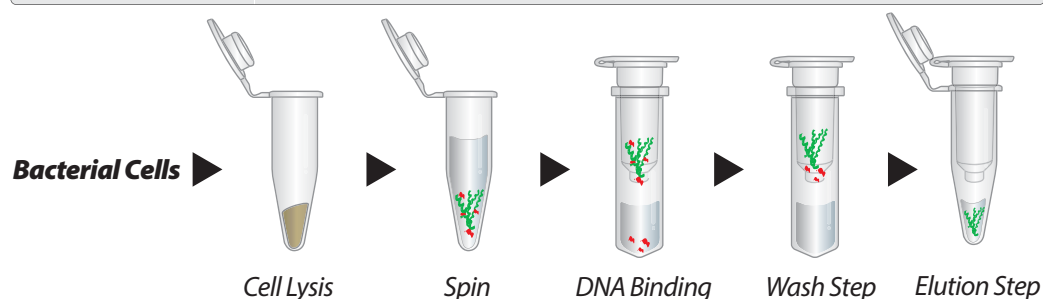
Quality Control

The quality of HiYield™ Plasmid Mini Kits are tested on a lot-to-lot basis. The Kits are tested by isolation of plasmid DNA from 4 ml culture of E.coli DH5a transformed with the plasmid pUC19 (A600>2units/ml).

HiYield Plasmid Mini Kit: Yield, Purity and Stability Test						
RBC Real Genomics	DH5a/TA			BL21/pET20b		
Volume(μl)	43	44	44	44.5	44.5	43.5
DNA conc.(μg/ml)	139.4	115.8	123.5	19.7	18.7	18
total DNA(μg)	5.99	5.01	5.43	0.88	0.83	0.78
A ₂₆₀ /A ₂₈₀	1.92	1.9	1.91	1.89	2.03	1.82
Brand Leader Q	DH5a/TA			BL21/pET20b		
Volume(μl)	44.5	44.5	44	44.5	44.5	43.5
DNA conc.(μg/ml)	112.2	100.8	123.5	19.7	18.7	18
total DNA(μg)	4.99	4.49	5.43	0.88	0.83	0.78
A ₂₆₀ /A ₂₈₀	1.91	1.9	1.91	1.89	2.03	1.82

Protocol

Sample Source:	Plasmid DNA from Bacteria
Sample size:	1-4 ml of bacterial cultures
Typical Plasmid Yield:	Low Copy Number: 0.5-5 μg High Copy Number: 10-20 μg (max 30 μg)
Preparation time:	20 mins



Storage and Stability

This kit should be stored at room temperature.

Reference

Bimboim, H. C., and Doly, J. (1979) *Nucleic Acids Res.* 7, 1513. Vogelstein, B., and Gillespie, D. (1979) *Proc. Natl. Acad. Sci. USA* 76, 615.

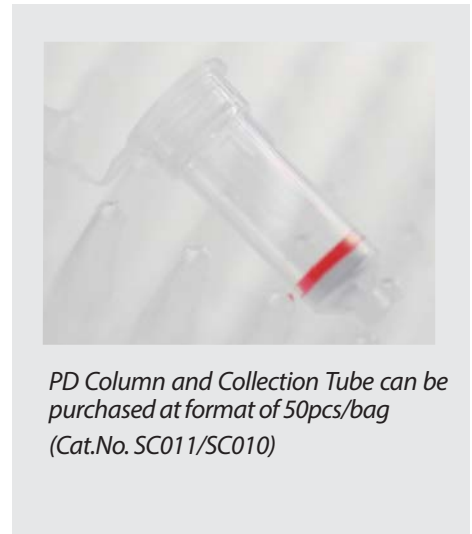
Cat.No.YPD100

100 mini preps / kit
PD1 Buffer: 25ml (B008)
PD2 Buffer: 25ml (B009)
PD3 Buffer: 40ml (B010)
W1 Buffer: 50ml
Wash Buffer (concentrated): 25ml
Elution Buffer: 10ml
RNase A (50 mg/ml): 50µl (RN050)
2ml Collection Tube: 100pcs (SC010)
PD Column: 100pcs (SC011)

Cat.No.YPD300

300 mini preps / kit
PD1 Buffer: 65ml (B046)
PD2 Buffer: 75ml (B047)
PD3 Buffer: 100ml (B048)
W1 Buffer: 130ml
Wash Buffer (concentrated): 40ml
Elution Buffer: 30ml
RNase A (50 mg/ml): 130µl (RN130)
2ml Collection Tube: 300pcs
PD Column: 300pcs

PD1,2,3 Buffer can be purchased separately (Cat.No. B008~B010 / B046~B050)



Performance

Dept. of Parasitology, Seoul National University College of Medicine, Korea

Comparison : HiYield Plasmid Mini Kit with Brand Q Plasmid Mini Kit



RBC Bioscience Labs

Lane 1: 1 kb marker

Lane 2-5: pET vector



Quality Nucleic Acid Purification Systems

RBC Real Genomics DNA/RNA Purification



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