

P1231 Test Report

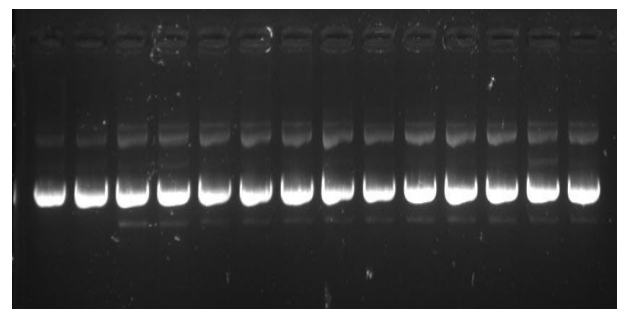
Experiment: Verify the plasmid extraction efficiency of P1231 kit

- Sample type: high copy vector LB culture medium
- Elution volume: 100~500µl
- Extraction time: manual 60 minutes
- Test kit: P1231
- Control kit: P1001, classic small amount plasmid extraction kit
- Detection method: nanodrop

A260/230	A260/280	Conc. µg/ul	Yield µg	B. liquid amount	Average yield of 1 ml B. liquid (µg)	Elution volume	Kit	Bacteria																																																																																																									
3.92	1.92	56	6	2 ml	3	100ul	P1001	F Bacteria Medium copy vector																																																																																																									
3.34	1.9	61	6						3.01	1.9	219	22	10 ml	2.2	100ul	P1231	3.17	1.9	217	22	2.73	1.9	222	22	2.85	1.85	778	78	50 ml	1.6	200ul	P1231	2.7	1.86	793	79	2.79	1.85	160	80	2.94	1.85	384	192	100 ml	1.9	500ul	P1231	2.93	1.82	385	193	2.91	1.82	390	195	2.71	1.87	122	12	2 ml	6.3	100ul	P1001	HA Bacteria High copy vector	2.76	1.87	126	13	2.55	1.84	631	63	10 ml	6.4	100ul	P1231	2.5	1.83	649	65	2.56	1.83	631	63	2.38	1.86	899	270	50 ml	5.4	300ul	P1231	2.38	1.88	901	270	2.35	1.80	880	264	2.31	1.85	1127	564	100 ml	5.5	500ul	P1231	2.49	1.82	1124	562
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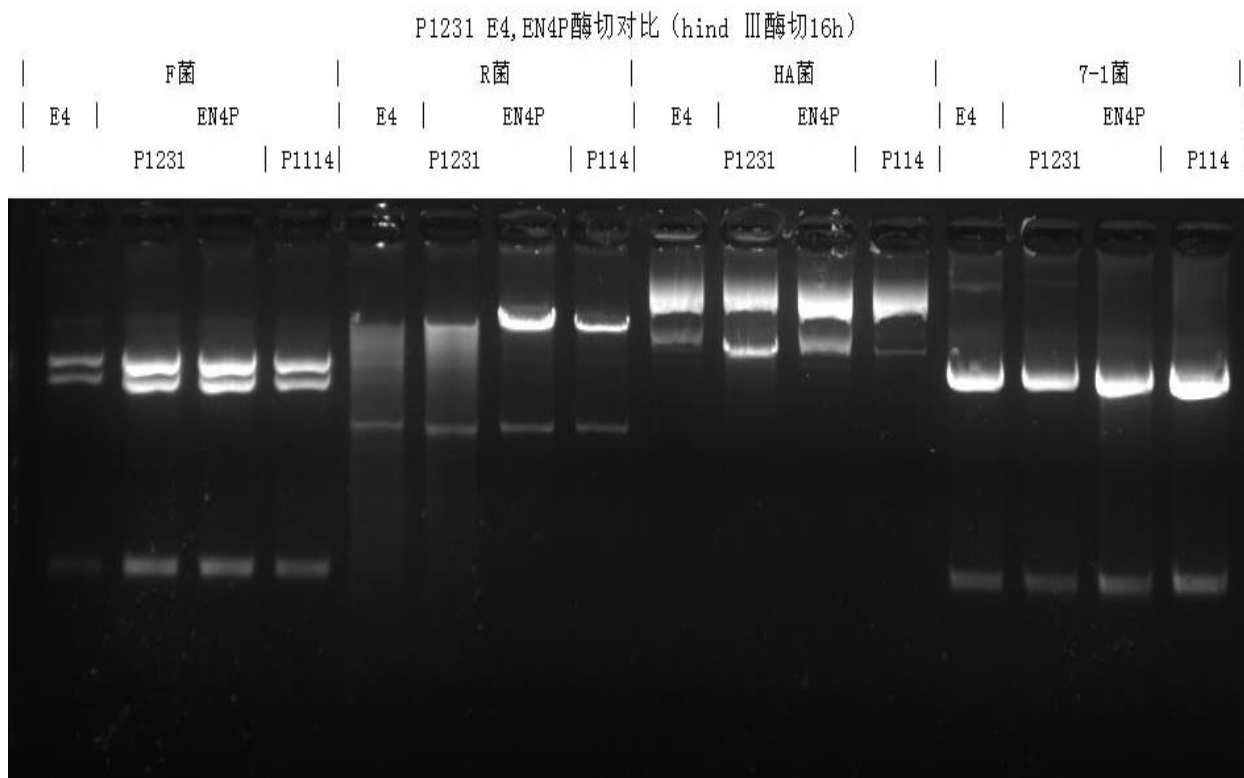
Conclusion: In this experiment, P1001 was used as a control to verify the extraction of plasmid DNA and nucleic acid purity using P1231 kit. The extracted plasmid DNA was analyzed using Nanodrop, and the results are as follows:

1. The A260/280 and A260/230 of plasmid DNA extracted by P1231 were between 1.8-1.9 and 1.8-2.8, indicating that the purity of plasmid DNA extracted by this kit meets the standard.
2. When extracting from medium or high copy number vectors with P1231, the plasmid yield showed a linear increase as the bacterial solution amount is between 10-100ml, reaching up to 563µg. The yield of plasmid DNA can reach 80-85% of the classic plasmid extraction kit P1001.

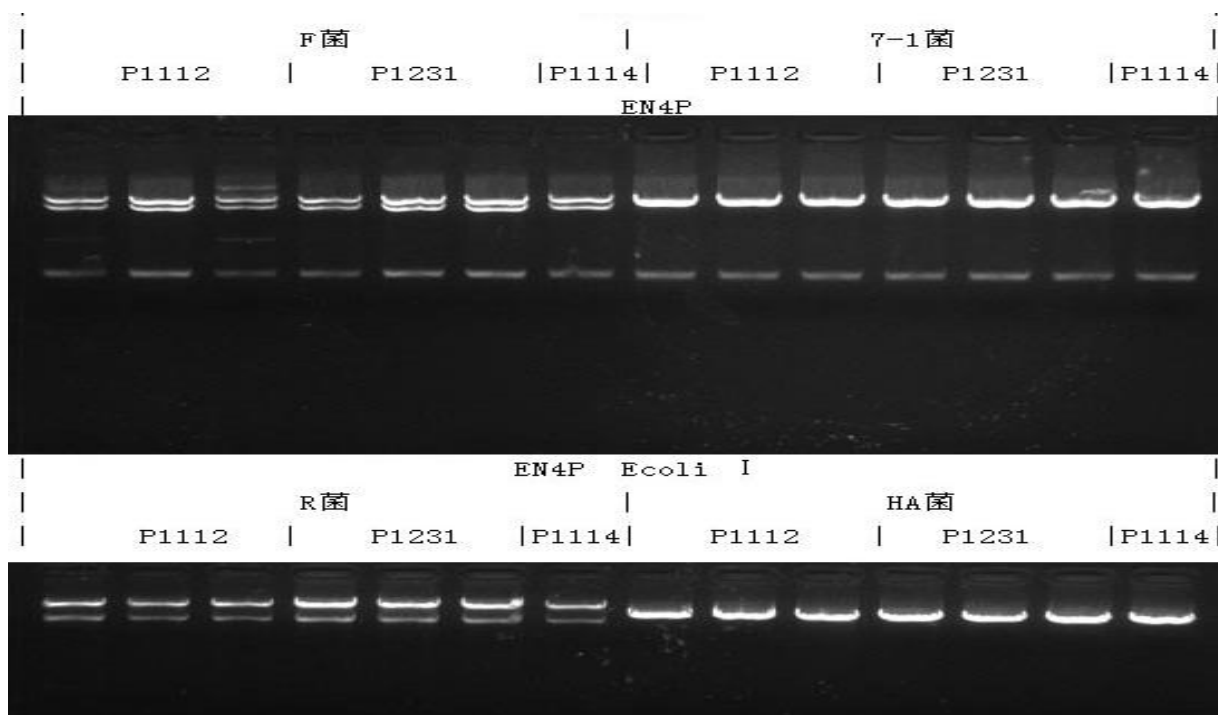


1. Comparison of enzyme digestion effects

Plasmid DNA from four different bacteria was extracted using P1231 and P1114, and the extracted plasmids were digested with HindIII enzyme. The digestion results are as follows.

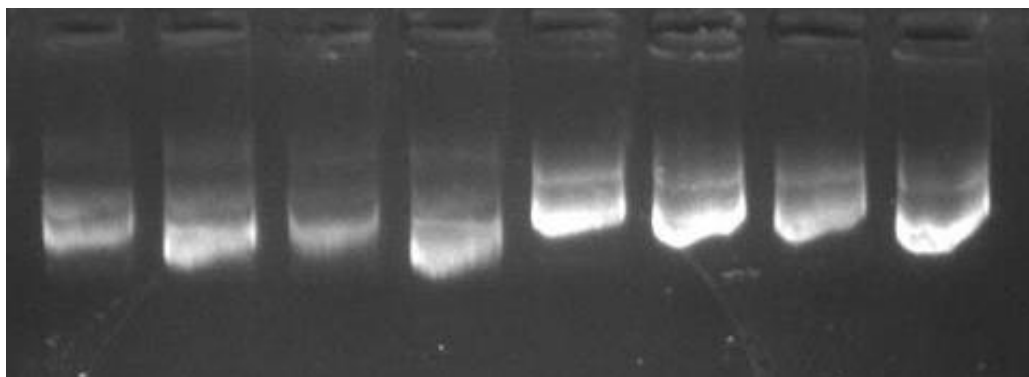


Four different copies of bacteria were extracted simultaneously using P1231, and each bacteria was repeated 7 times with different amounts of bacterial solution. Enzyme digestion was then performed to test the stability of the digestion.



2. Plasmid stability

Place the plasmids extracted from P1231 at room temperature for 5 days. The results showed that the plasmid did not degrade even after being left at room temperature for 5 days.



3. Comparison between Magen P1231 and Qiagen Compact Plasma Plus Midi Kit

Brand	Kit	Vector	B. liquid amount	Elution volume	Conc. $\mu\text{g}/\text{ul}$	260/280	260/230	Yield μg
Qiagen	Qiagen Compact Plasmid Plus Midi Kit	pCDNA3.1	30ml	200 μl	1.458	1.9	2.36	291.6
Magen	Magen P1231		30ml	200 μl	1.558	1.92	2.28	311.5
			100ml	400 μl	2.095	1.91	2.27	838.2
Qiagen	Qiagen Compact Plasmid Plus Midi Kit	PUC18	30ml	200 μl	0.486	1.92	2.27	97.2
Magen	Magen P1231		30ml	200 μl	0.564	1.91	2.21	112.7
			100ml	400 μl	1.477	1.92	2.27	295.3
Qiagen	Qiagen Compact Plasmid Plus Midi Kit	pEGF-N1	30ml	200 μl	1.264	1.91	2.37	252.7
Magen	Magen P1231		30ml	200 μl	1.253	1.91	2.34	250.5
			100ml	400 μl	1.845	1.9	2.28	738.1

