

## Evaluation Report

### Materials:

- 1) Apostle MiniMax High Efficiency cfDNA Isolation Kit (Standard Edition)
- 2) Competing technology P
- 3) Samples: standard cfDNA solution (26ng/mL, prepared from 200bp PCR products solved in 1X PBS)

### Methods:

- 1) Prepare 8 samples (200 uL each) of standard cfDNA solution. Randomly divide into 2 groups.
- 2) Extract the cfDNA in each group using Apostle MiniMax High Efficiency cfDNA Isolation Kit (Standard Edition) and the competing technology P, respectively. Repeat 4 times in each group. Elute the product using 20 uL elution buffer.
- 3) Take 5 uL from each of the 20uL elution solution. Add 45 uL purified water. Take 2 uL to quantify the cfDNA in a 10 uL qPCR reaction.
- 4) Evaluate the extraction efficiency of the two technologies.

### Findings:

- 1) Extraction efficiency evaluated by qPCR

Sample	Ct	Ct (Mean)	Extraction Efficiency	Ct (Mean)	Extraction Efficiency (Mean)	Ct SD
Standard cfDNA Solution	7.865	7.735		7.735		0.184
	7.604					
Apostle-1	8.016	8.077	78.87%	8.013	82.45%	0.111
	8.138					
Apostle-2	7.828	7.884	90.16%			
	7.940					
Apostle-3	8.040	7.978	84.48%			
	7.916					
Apostle-4	8.127	8.113	76.92%			
	8.100					
P-1	8.411	8.381	63.86%	8.231	70.88%	0.123
	8.351					
P-2	8.142	8.096	77.84%			
	8.050					
P-3	8.202	8.173	73.82%			
	8.143					
P-4	8.220	8.274	68.80%			
	8.328					

### Conclusions:

- 1) All samples show normal qPCR amplification curves.
- 2) cfDNA extraction efficiency based on Ct values before and after the experiment: Apostle MiniMax High Efficiency cfDNA Isolation Kit (Standard Edition) shows a 12% higher efficiency than the competing technology P.