

# Control DNA - IS

For Validation of 3% Gel Cassettes  
with Internal Standards

collects targets between 90 - 250 bp

Item# CIS3004

For:

**Pippin Prep™**  
CDF3010 Gel Cassettes

**BluePippin™**  
BDF3010 Gel Cassettes

\* These data are not intended to imply guaranteed results or performance. This product is intended to demonstrate that the Pippin product is functioning as expected, and that proper operational technique is being used. Users should refer to the Operations Manual for performance specifications.



## What is Enclosed

Pippin cassettes and instruments are functionally tested using restriction digests of genomic DNA from E. coli. For each cassette type, a different restriction digest is used, chosen so that size distribution of the digested DNA closely matches the useful fractionation range of the cassette, without any significant peaks or discontinuities. Following restriction digestion, the control DNA is purified by phenol:chloroform extraction, dialyzed, and diluted into Pippin electrophoresis buffer.

Enclosed is one tube of gDNA digest with sufficient volume for 16 sample loads. After internal standards are added, the final DNA load amount is 5 µg per sample, the same amount used for calibration and ongoing quality control.

Control DNA is useful to test, refine, and troubleshoot Pippin size fractionation protocols. It can also be used to check system performance.

## To Use

1. Pipette 30 µl of gDNA digest and transfer to reaction tube.
2. Add 10 µl of internal standard to the tube (Marker F for Pippin Prep CDF3010, or Marker Q2 for BluePippin BDF3010).
3. Mix samples thoroughly ( vortex mixer). Briefly centrifuge to collect.
4. Carefully follow sample load instructions outlined in the Operations Manual or cassette Quick Guide.
5. Pipette 40 µl of the gDNA/marker mix into a sample well.

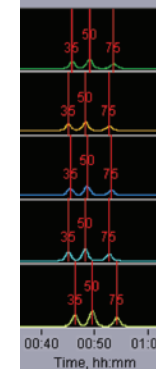
## QC protocol for 3% agarose cassettes

Cassettes are tested using “Tight” mode with the following target values. Extracted samples are run an Agilent Bioanalyzer using a DNA 1000 chip. The analysis volume is 1 µl from a 40 µl elution volume (1:40 dilution).

	Tight	Range	Time	Peak	Ref Lane	BP Target	BP Start	BP End	BP Pause
5					5	180	164	196	0
4					4	150	135	165	0
3					3	130	116	144	0
2					2	110	98	122	0
1					1	90	79	101	0

## Typical Results

Since internal standards are used with dye-free cassettes, the DNA will not be optically detected. Marker peaks will appear in each lane:



The following bioanalyzer results indicate typical results from QC testing:

