

\* 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.

# Control DNA - IS

For Validation of 2% Gel Cassettes  
 with Internal Standards

collects targets between 100 - 600 bp

Item# CIS2004

For:

**Pippin Prep™**  
 CDF2010 Gel Cassettes

**BluePippin™**  
 BDF2010 Gel Cassettes



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## 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 L for Pippin Prep CDF2010, or Marker V1 for BluePippin BDF2010).
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.

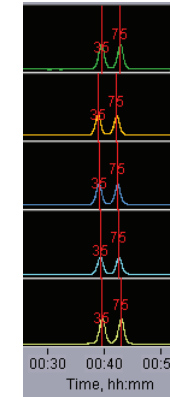
## QC protocol for 2% agarose cassettes

Cassettes are tested using "Tight" mode with the following target values. Extracted samples are run on 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	150	135	165	0
4					4	275	248	302	0
3					3	400	360	440	0
2					2	500	450	550	0
1					1	600	540	660	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:

