





**Table 1. Reproducible DNA yields obtained from different buffy coat sample volumes using the EZ1 DNA Buffy Coat Protocol**

Buffy coat sample	Donor	Sample volume (µl)	Buffy coat WBC count (10 <sup>6</sup> /ml)	Average <sup>‡</sup> DNA yield (µg)
Highly enriched*	A	75	–	12.1 ±0.9
	A	100	–	13.1 ±1.1
Normal WBC count <sup>†</sup>	B	150	27.1	14.0 ±0.5
	C	150	21.0	12.9 ±1.4
	D	150	21.3	13.4 ±0.2
	E	150	20.3	12.8 ±0.6
	F	150	–	8.5 ±1.3
	G	150	17.9	10.9 ±0.6
	H	150	10.7	8.2 ±0.2
	I	150	9.8	6.8 ±0.1
	Low WBC count	H	300	10.7
	I	300	9.8	13.2 ±0.2

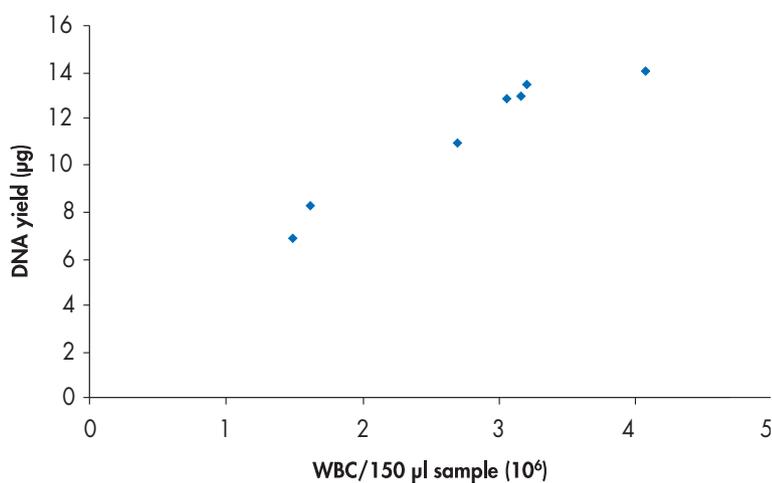
\* Prepared by centrifuging (300 x g for 10 minutes) from a CPD-preserved blood bag, ~10x enrichment.

† Prepared by centrifuging 10 ml EDTA-preserved blood tubes at 300 x g for 10 minutes.

‡ DNA yields represent averages of 6 replicates.

**Note:** The 300 µl protocol is not recommended for highly enriched or normal buffy coat samples.

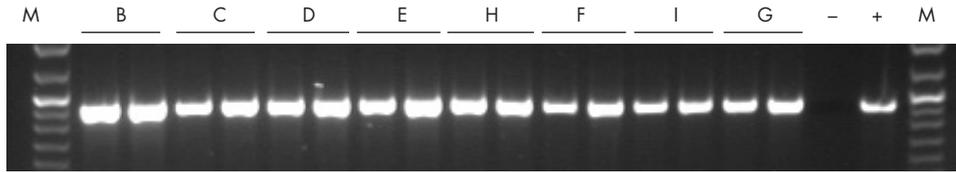
**Representative Yields of High-Purity DNA from Buffy Coat Samples**



**Figure 1.** Each data point represents the average yield from 3 replicates.



Consistent PCR Results



**Figure 2.** Amplification of a 900 bp single-copy gene (MECL-1) using template DNA purified from 8 different buffy coat samples with low to medium WBC concentration. Total DNA elution volume was 200 µl and 5 µl DNA was used as template in 50 µl PCR. A 5 µl (10%) aliquot of each PCR was visualized using a 1.5% agarose gel. **M:** 100 bp DNA ladder (100 ng); **+**: positive control; **-**: negative control.

Conclusions

Using the BioRobot EZ1 System:

- n Yields of high-quality DNA are representative of sample concentration
- n Purified DNA performs consistently in sensitive downstream applications such as PCR
- n Buffy coat samples yield up to 14 µg DNA

Contact QIAGEN today and discover easy automation for reproducible DNA preps from buffy coat samples!

Ordering Information

Product	Contents	Cat. No.
BioRobot EZ1	Robotic workstation for easy, automated purification of nucleic acids	9000705
EZ1 DNA Blood 350 µl Kit* (48)	48 Reagent Cartridges (Blood 350 µl), 50 Disposable Tip Holders, 50 Disposable Tips, 50 Sample Tubes (2.0 ml), 50 Elution Tubes (1.5 ml)	951054
EZ1 DNA Buffy Coat Card	Pre-programmed card for BioRobot EZ1 DNA Buffy Coat 75 µl, 150 µl, and 300 µl Protocols	9015587

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