



Agencourt FormaPure Reagent Kits

Manual or Automated RNA, DNA or Total Nucleic Acid Extraction from FFPE

Nucleic acid extraction from formalin-fixed, paraffin-embedded (FFPE) tissue is challenging due to the nature of the tissue preparation. Agencourt FormaPure reagent kits represent a single chemistry system designed and optimized for use in Next-Generation Sequencing (NGS) as well as other downstream applications including qPCR/ddPCR/PCR. Maximizing integrity, yield and purity from an FFPE sample is required to minimize the risk of losing important genetic information.

- Consistent extraction of NGS compatible RNA and/or DNA from a single FFPE sample
- Scalable single chemistry system for manual or automated usage
- Extract higher integrity nucleic acids supporting improved sensitivity for NGS applications

Don't lose critical data

FormaPure reagent kits are the clear choice for nucleic acid extraction from FFPE tissues.

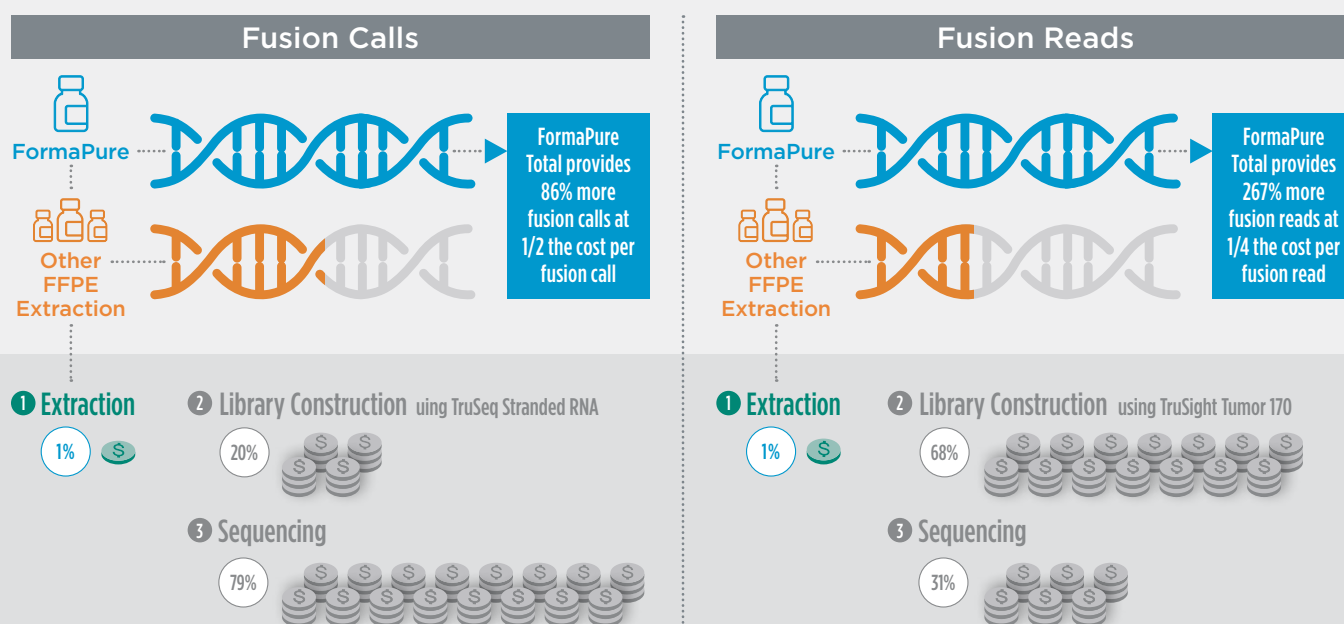


Figure 1. Comparative NGS fusion data and relative cost percentages for the workflows using TruSeq Stranded RNA (left) and TruSight Tumor 170 (right) were obtained empirically using reference FFPE tissues. Libraries were sequenced as part of 8- and 16-multiplexed run for TruSeq Stranded RNA and TruSight Tumor 170, respectively.

FormaPure RNA & FormaPure Total

NGS performance starts with RNA integrity. Fragment analysis shows FormaPure reagent kits retain the best possible RNA integrity even with 10+ year old tissue blocks.

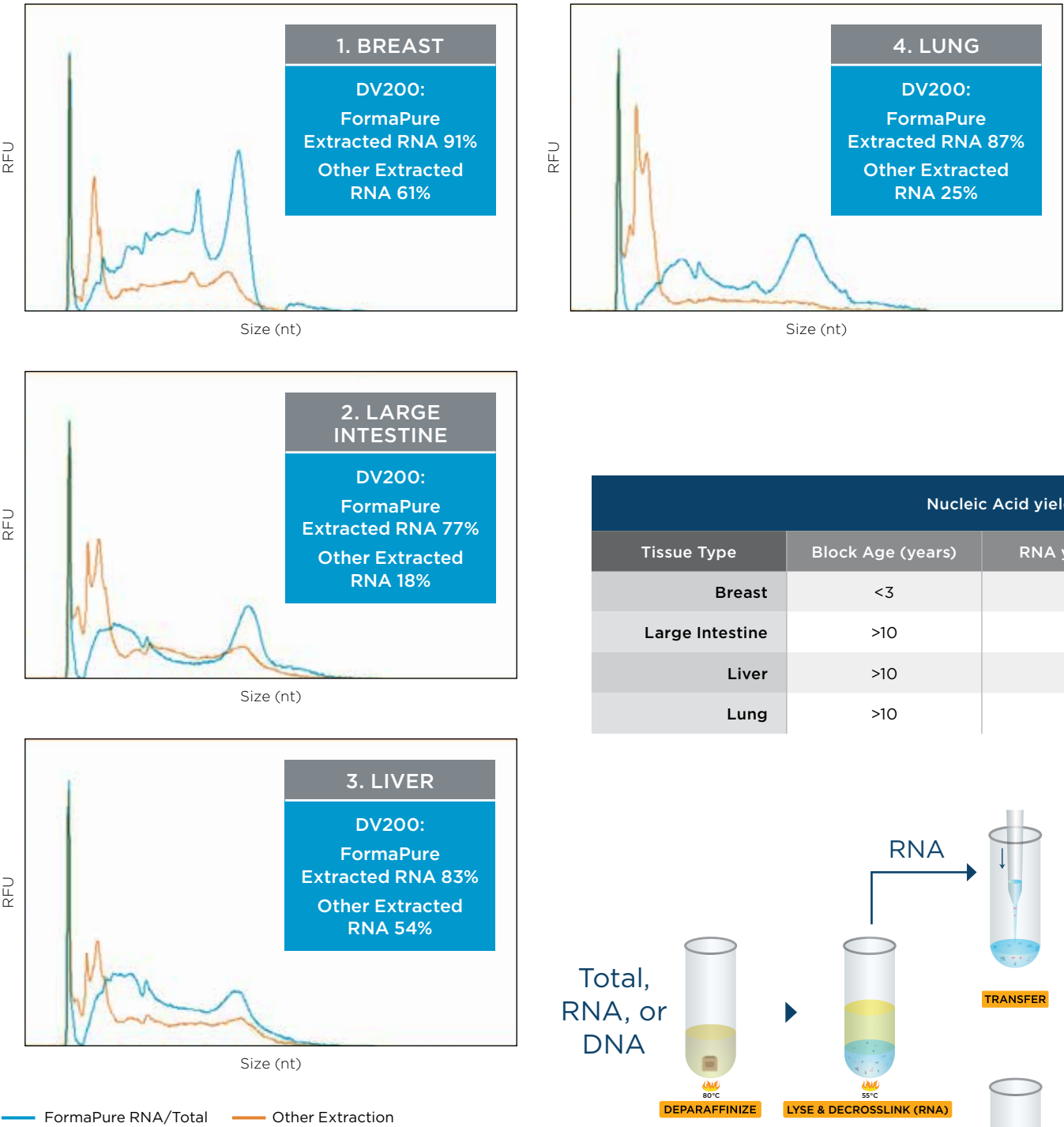


Figure 2. FormaPure RNA isolates RNA with superior integrity. Fragment analyses were performed with RNA isolated with FormaPure RNA (blue traces) and an alternative method (orange traces) from four different FFPE sample types. All extractions were performed with one 10 µm curl. DV200 values are presented for each of the chromatograms. DV200 values represent the percentage of RNA fragments > 200 nucleotides.

FormaPure DNA & FormaPure Total

FormaPure DNA maintains detectability of low frequency variants without introducing extraction based experimental bias. DNA extracted using FormaPure DNA is suitable for the most stringent downstream applications including NGS.

FormaPure DNA and FormaPure Total provide:

- Consistent & efficient extraction performance
- Simple workflow with minimal hands-on time
- Proven compatibility with NGS and other downstream applications
- Flexibility to accommodate sample input variation
- Best in class performance for yield, integrity, and purity

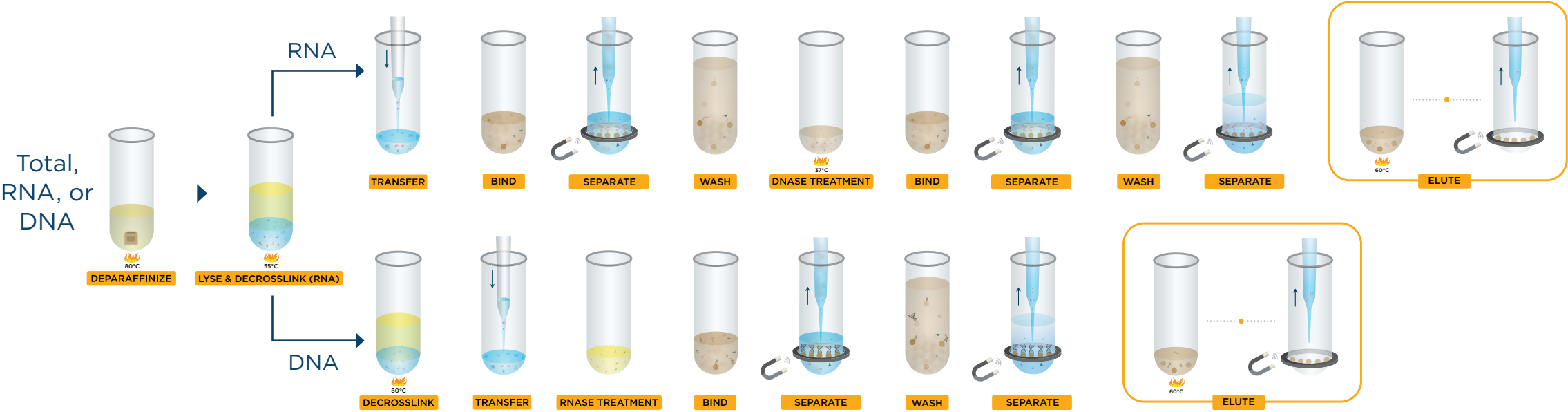
NEXT-GENERATION SEQUENCING COMPATIBILITY

POSITION	GENE	FORMAPURE DNA SAMPLES WITH VARIANT CALL (MAX 6)	FORMAPURE DNA VARIANT FREQ (%)	EXPECTED ALLELIC FREQ (%)
140453136	BRAF	6	12.2	10.5
55599321	KIT	6	9.2	10
55242464	EGFRΔ	6	1.8	2
55259515	EGFR	6	3.1	3
55241707	EGFR	6	25	24.5
25398281	KRAS	6	13.7	15
25398284	KRAS	6	5.3	6
115256530	NRAS	6	17.2	12.5
178952085	PIK3CA	6	17.5	17.5
178936091	PIK3CA	6	9.1	9

Table 1. Extraction with FormaPure DNA supports detection of low frequency variants.

Nucleic Acid yields are determined by the following variables					
Tissue Type	Block Age (years)	RNA yield (ng)	Tissue Type	Block Age (years)	DNA yield (ng)
Breast	<3	866	Breast	<3	368
Large Intestine	>10	576	Large Intestines	>10	410
Liver	>10	580	Liver	>10	1134
Lung	>10	376	Lung	>10	951

- Tissue type
- Tissue size
- Tumor type
- Fixation method
- Paraffin embedding method
- Reagents
- Storage conditions
- Tissue input amount
- Extraction chemistry
- Age of tissue block



For use in manual or automated methods based on batch size or overall throughput

Formapure Total, RNA and DNA are a flexible set of extraction kits suitable for manual or automated workflows.

- Scalable based on throughput
- Quick transition with ready-to-implement methods
- Knowledgeable support for reagents, automation and methods from a single vendor

Table 2. Estimated hands-on time and total time, in hours, required to perform 48 and 96 Formapure Total, RNA or DNA nucleic acid extractions. The methods can be performed either manually or automated on a liquid handling system. Difference in time between manual and automation is indicated.

NR = Not Recommended

			Formapure Total		Formapure DNA		Formapure RNA	
			Manual	Automated	Manual	Automated	Manual	Automated
Batch Size	8	Hands-on Time	3.5	0.5	1.0	0.5	2	0.5
		Total Time	6.5	6	3.5	5.25	4.5	5
	24	Hands-on Time	4	0.5	1.5	0.5	2.5	0.5
		Total Time	7	6.25	4	5.5	5	5
	48	Hands-on Time	NR	0.5	NR	0.5	NR	0.5
		Total Time	NR	6.5	NR	5.5	NR	5.5
	96	Hands-on Time	NR	0.5	NR	0.5	NR	0.5
		Total Time	NR	6.75	NR	5.75	NR	5.5

Formapure Total

PART NO	NAME	PREPS
C16675	Formapure Total	50
C16676	Formapure Total	96

Formapure reagent kits are available in multiple kit sizes and extraction types based on your application and throughput needs. Contact your local sales representative or visit beckman.com to request a quote.

Formapure RNA

PART NO	NAME	PREPS
C19157	Formapure RNA	50
C19158	Formapure RNA	96

For more information, please contact:

Formapure DNA

PART NO	NAME	PREPS
B89230	Formapure DNA	50
B89231	Formapure DNA	96



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