

invitrogen



Collibri NGS library preparation kits for high-throughput Illumina systems

Assure the best chance of NGS library prep success using real-time visual feedback

ThermoFisher
SCIENTIFIC



We say that necessity is the mother of invention
But we want to invent new things using
Our same old ways.

...

What if
I allowed my eyes to actually see what I am looking at,
To actually understand the place of someone else.

What if
I shared my place with someone else
And they shared theirs with me.

What if
We grew together.

What if
We changed together.

What if
We carried this weight together.
Took a risk together.

What if
We innovated together.

...

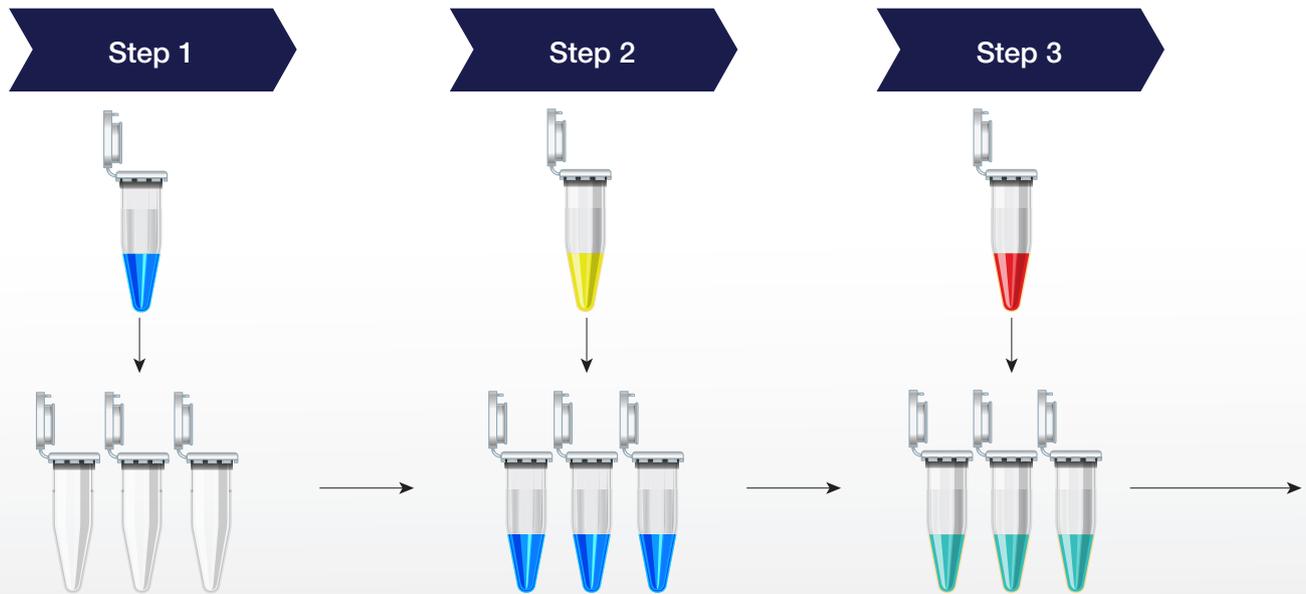
We
Can walk together,
Lift this weight together
Learn together,
Change together,
Evolve together,
So that we may innovate together.

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How does real-time visual feedback help assure success?

- Each reagent contains a tracking dye to visualize library prep progress
- Helps prevent costly errors at every stage of the process

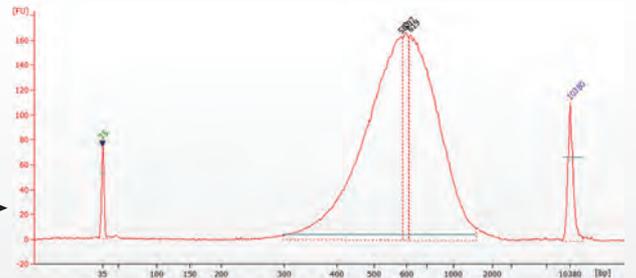


Simple to follow

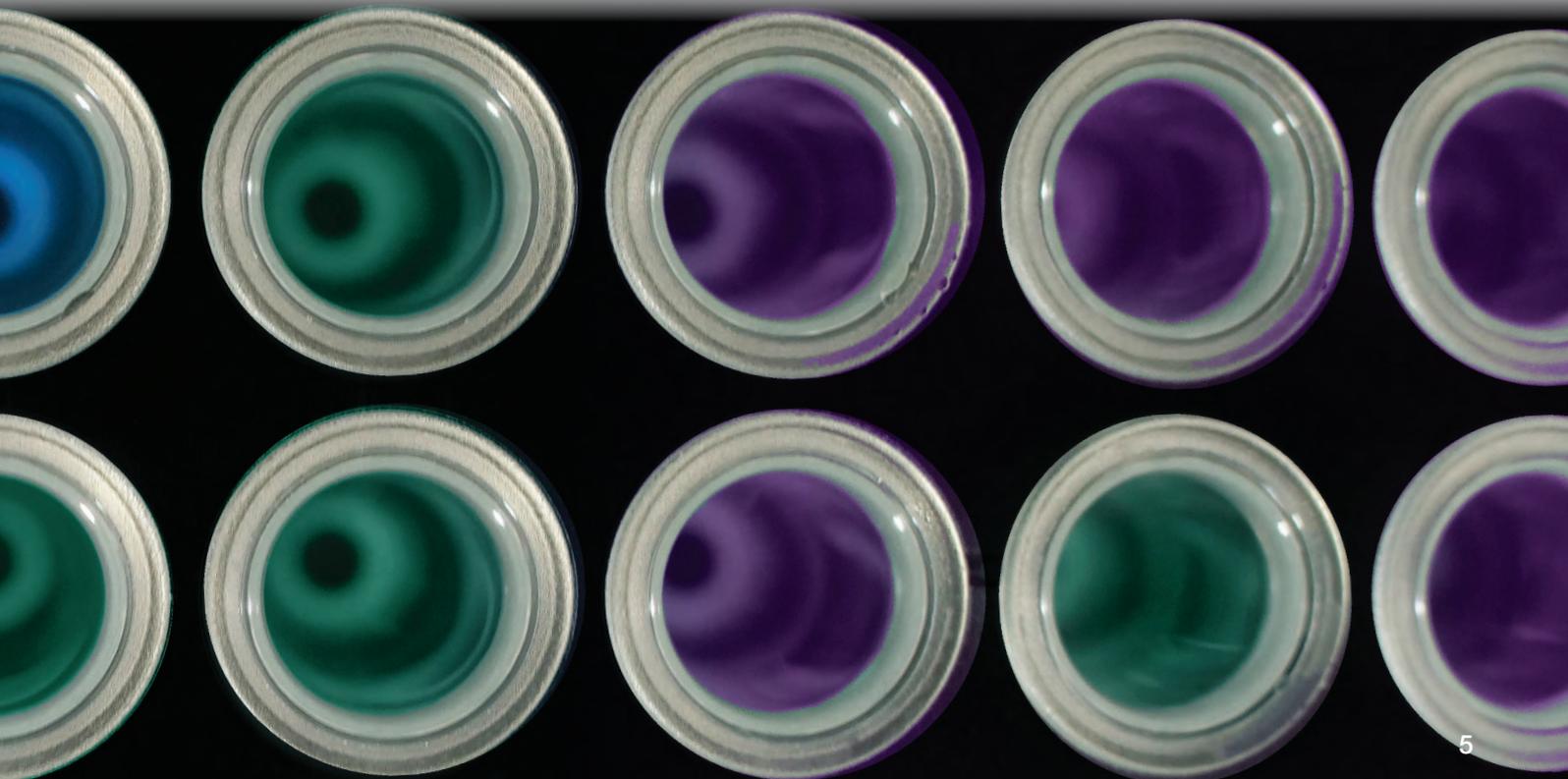
To watch the reagents change color indicating success, go to [thermofisher.com/collibri](https://www.thermofisher.com/collibri)



Step 4



Lack of color change indicates incomplete addition or mixing of reagents



High-throughput sample prep for NGS

Your samples, powered by KingFisher instruments

Thermo Scientific™ KingFisher™ instruments offer versatility and are elegantly designed to support multiple applications. They harness the power of Applied Biosystems™ MagMAX™ magnetic bead-based technology to automate DNA and RNA isolation, and scale to meet the needs of high-throughput facilities.

- **Choose your throughput**—process 6–96 samples per run depending on the instrument model
- **Use interchangeable formats**—24- or 96-well plates allow you to process a wide range of input volumes
- **Customize your protocol**—easily edit, modify, or create new protocols
- **Optimized reagents**—compatible with multiple magnetic-bead reagents

Find a model that meets your needs



KingFisher instrument:	Duo Prime	Flex	Presto
Instrument size	Compact benchtop	Benchtop	Benchtop—integrates with robotic liquid handler
Throughput level	Low to medium	Medium to high	Ultrahigh
Processing volume range	<ul style="list-style-type: none"> • 50–1,000 µL: 12-pin magnet head • 200–5,000 µL: 6-pin magnet head 	<ul style="list-style-type: none"> • PCR plate (20–100 µL*), skirted • 20–200 µL: 96-well plate • 50–1,000 µL: 96 deep-well plate • 200–5,000 µL: 24 deep-well plate 	<ul style="list-style-type: none"> • 50–1,000 µL: 96 deep-well plate • 200–5,000 µL: 24 deep-well plate • KingFisher 96 plate: 50–150 µL
Samples per run	6 or 12	24 or 96	24 or 96
Customizable protocols	Yes	Yes	Yes
Heating/cooling	<ul style="list-style-type: none"> • 10°C to 75°C (plate row block A) • 4°C to 75°C (elution strip block) 	From 5°C above ambient temperature to 115°C	From 5°C above ambient temperature to 115°C
Ultraviolet lamp	8 watts (up to 16 hr)	No	No

* Or similar skirted PCR plate.

Find out more at thermofisher.com/kingfisher



RNA isolation for whole-transcriptome sequencing

Retain coding and noncoding RNA diversity



NGS library diversity begins with retention of a broad range of RNA species during extraction and purification, particularly at low input levels. The column-based Invitrogen™ PureLink™ RNA Mini Kit and magnetic bead-based Applied Biosystems™ MagMAX™ *mirVana*™ Total RNA Isolation Kit offer convenient protocols for purifying true total RNA while retaining coding and noncoding transcripts (Figures 1 and 2).

	PureLink RNA Mini Kit	MagMAX <i>mirVana</i> Total RNA Isolation Kit
Sample type	Tissues, cells, liquid samples (whole blood/plasma/serum/urine), bacteria, plants	Tissues, cells, liquid samples (whole blood/plasma/serum/urine)
Input range	5 x 10 ⁶ to 1 x 10 ⁸ cells, up to 200 mg tissue	Flexible and scalable
Elution volume	30–100 µL	20–100 µL
Total processing time	20 min total time per sample	1.5–2 hr total time per 96 samples (20 min hands-on time with KingFisher instruments)
Automation-friendly	No	Yes, with KingFisher instruments
No. of reactions	10, 50, and 250 rxn kits	Scalable 96 rxn kit
Resources	thermofisher.com/purelink	thermofisher.com/magmaxmirvana

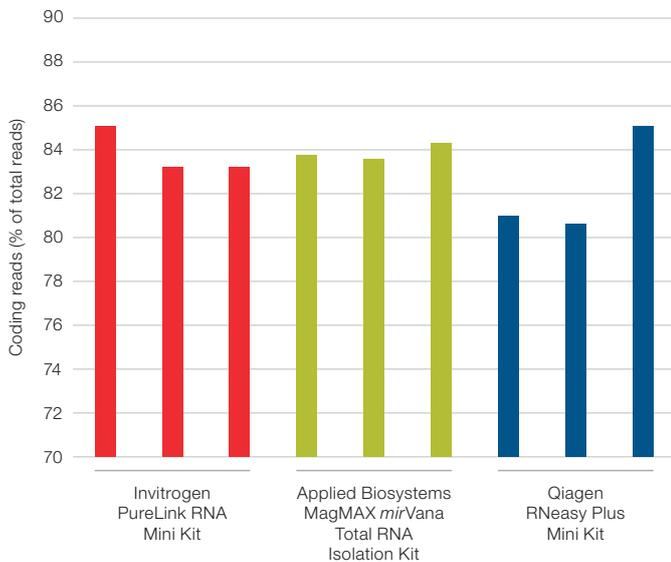


Figure 1. PureLink and MagMAX kits reproducibly retain coding RNAs. Total RNA was extracted from 500,000 Jurkat cells per replicate, and 500 ng was converted to an NGS library using the Invitrogen™ Collibri™ Stranded RNA Library Prep Kit for Illumina™ Systems with H/M/R rRNA Depletion Kit. Libraries were sequenced on an Illumina™ NovaSeq™ 6000 system, and protein-coding reads were measured as a percentage of total reads.

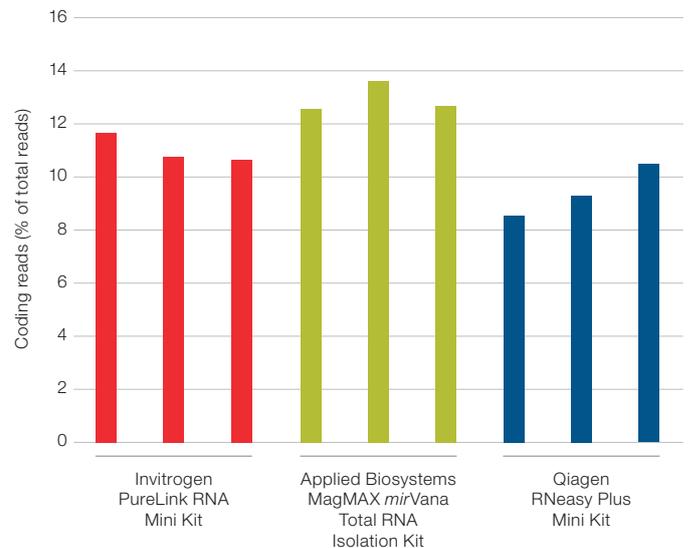
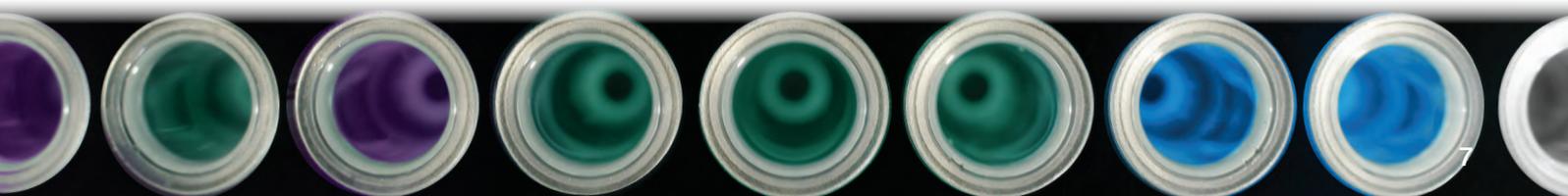


Figure 2. PureLink and MagMAX kits reproducibly retain noncoding RNAs. Total RNA was extracted from 500,000 Jurkat cells per replicate, and 100 ng was converted to an NGS library using the Collibri Stranded RNA Library Prep Kit for Illumina Systems with H/M/R rRNA Depletion Kit. Libraries were sequenced on an Illumina NovaSeq 6000 system and evaluated for noncoding RNA diversity.



Whole-genome library prep, physical shearing (PS)

Remove bias from genomic interpretation

Improve sensitivity and accuracy of variant detection from high-throughput sequencing with consistently even GC coverage among PCR-free and amplified libraries. Rapid protocols provide reproducible gene coverage among low-abundance (1 ng) and high-abundance (1,000 ng) samples for consistency among results in projects with variable sample quality and abundance.

All components, including indexed adaptors, amplification master mix (if relevant), and cleanup beads are included for convenience and performance. 96 unique dual indexes (UDIs) are available to filter index-hopped reads on patterned flow cells.* These kits are suitable for intact and degraded samples, including formalin-fixed, paraffin-embedded (FFPE) tissue.

Invitrogen™ Collibri™ PCR-free PS DNA Library Prep Kits for Illumina™ Systems

- Support inputs of 500–1,000 ng
- Support across more steps in a faster workflow

Reduce time spent on placing orders, managing inventory, and contacting technical support from multiple companies. We offer support across the majority of the pre-sequencing workflow.

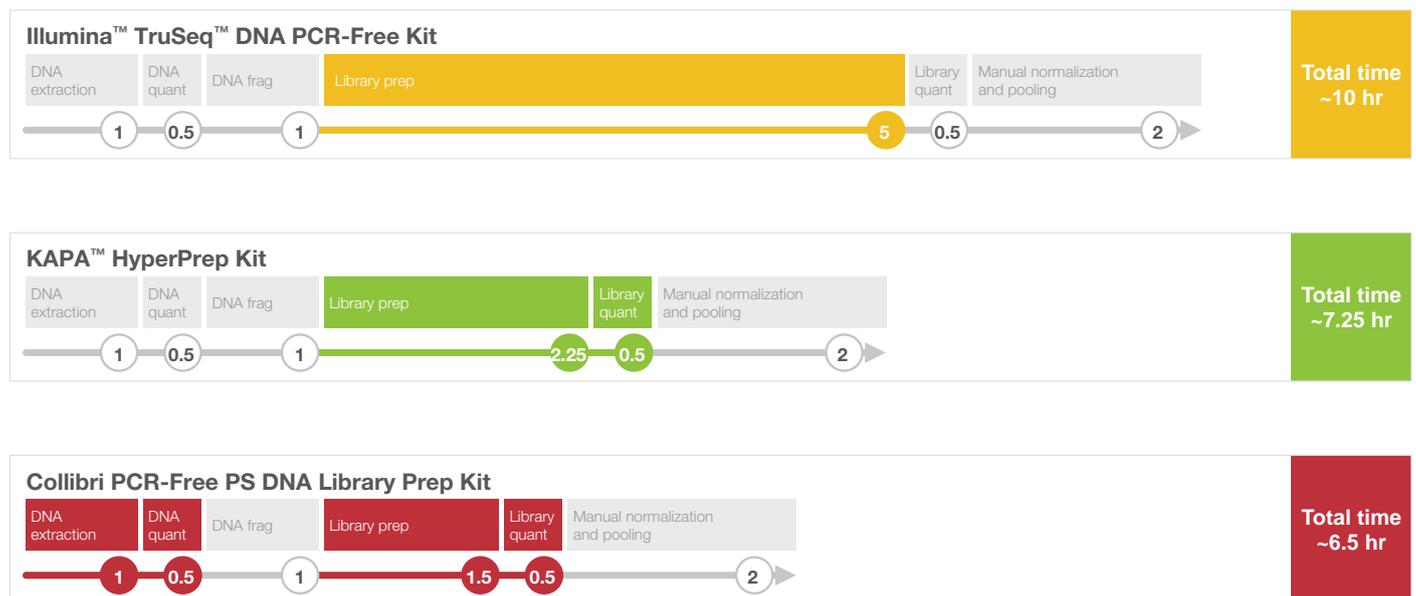
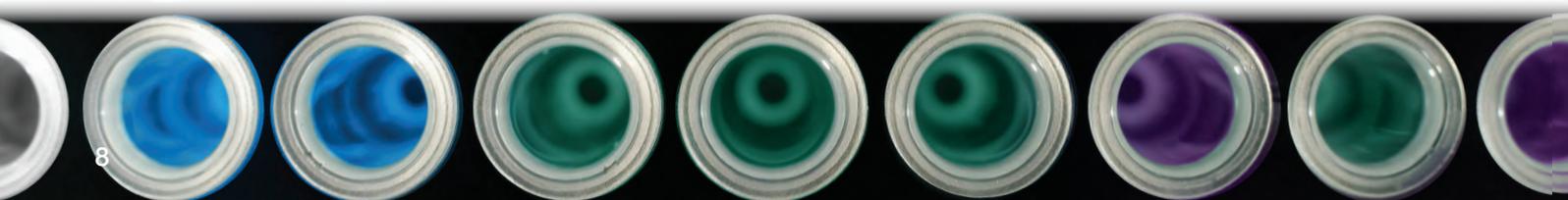


Figure 3. Collibri PCR-Free PS DNA Library Prep protocols are completed in 1.5 hours, reducing total workflow time to ~6.5 hours. We offer technical and ordering support for several steps in the pre-sequencing workflow to help improve the efficiency of your lab.

* 96 UDIs are currently available in 4 x 24 plate format. A single-plate format will be available in late 2019.

Learn more at thermofisher.com/collibriPSdna



Invitrogen™ Collibri™ PS DNA Library Prep Kits for Illumina™ Systems

- Confidently call variants from low-abundance samples
- Support input of 1–1,000 ng

Call variants with confidence. Consistently even GC coverage enhances detection of single-nucleotide polymorphisms (SNPs) with consistency from 1–1,000 ng of DNA.

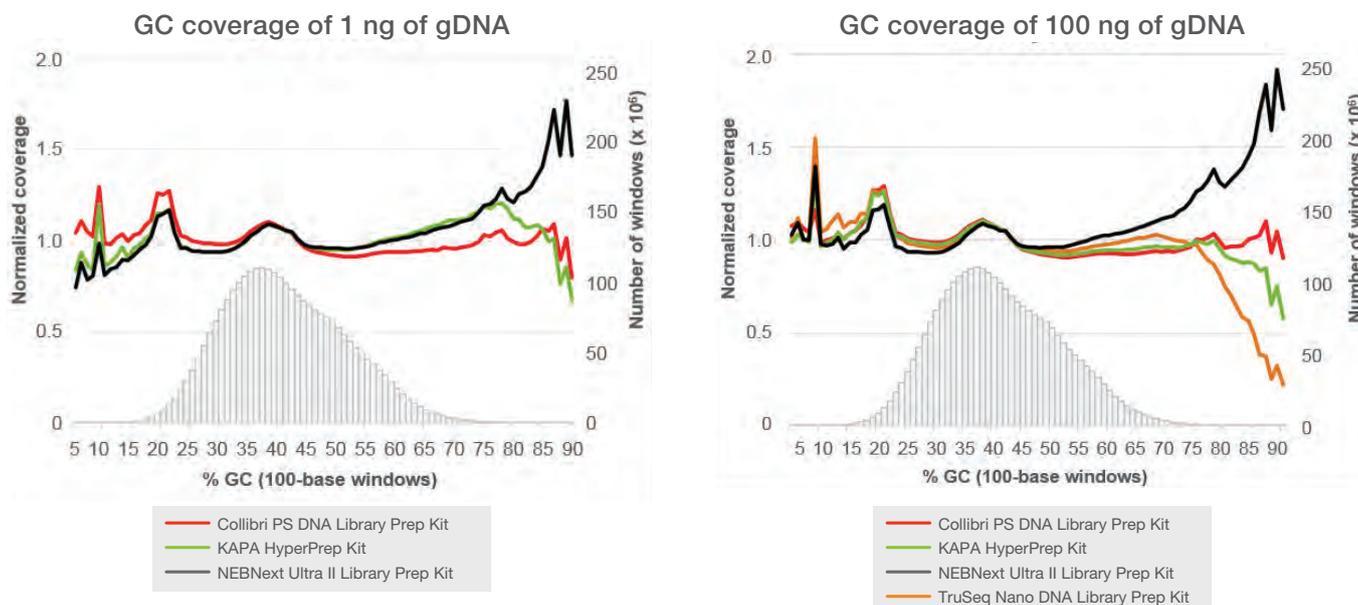


Figure 4. Consistent, predictable GC coverage improves genome assemblies without the need to increase sequencing depth; Invitrogen™ Collibri™ DNA Library Prep Kits provide the most consistently even coverage among all input levels. Coriell NA12878 samples were sequenced on an Illumina NovaSeq 6000 System and reads were normalized to 186 million reads. GC bias was calculated using Picard tools v2.7.1. Run length was 2 x 150 bp.

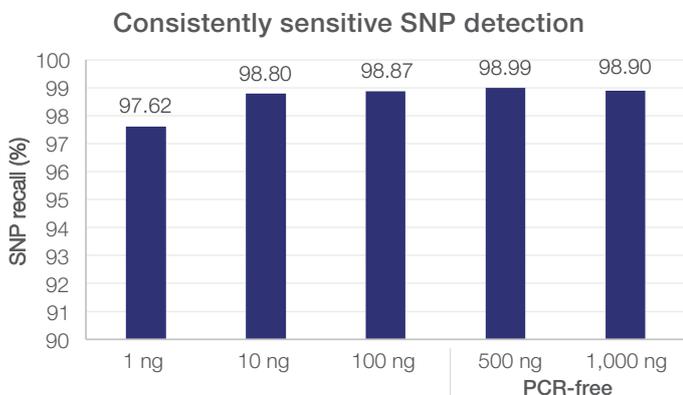


Figure 5. The Collibri PS DNA Library Prep Kit for Illumina Systems detects SNPs from 1 ng input (amplified) with similar sensitivity to PCR-free protocols. Coriell NA12878 DNA was converted into a sequencing library by the Collibri PS (or PCR-free PS) Library Prep Kit and sequenced on a 2 x 150 bp paired end run on an Illumina NovaSeq 6000 System. Reads were normalized to 186 million reads per sample and SNPs detected by FreeBayes v1.2.0.



Whole-genome library prep, enzymatic shearing (ES)

High yield with strong gene coverage

High yields and strong coverage of biologically important genes improve high-throughput sequencing data interpretation. All components, including shearing enzymes, indexed adaptors, amplification

master mix (if relevant), and cleanup beads are included for convenience and performance. 96 unique dual indexes (UDIs) are available to filter index-hopped reads on patterned flow cells.*

Invitrogen™ Collibri™ PCR-free ES DNA Library Prep Kits for Illumina™ Systems

- Support input of 100–500 ng
- High yield of libraries generated in 1.5 hours

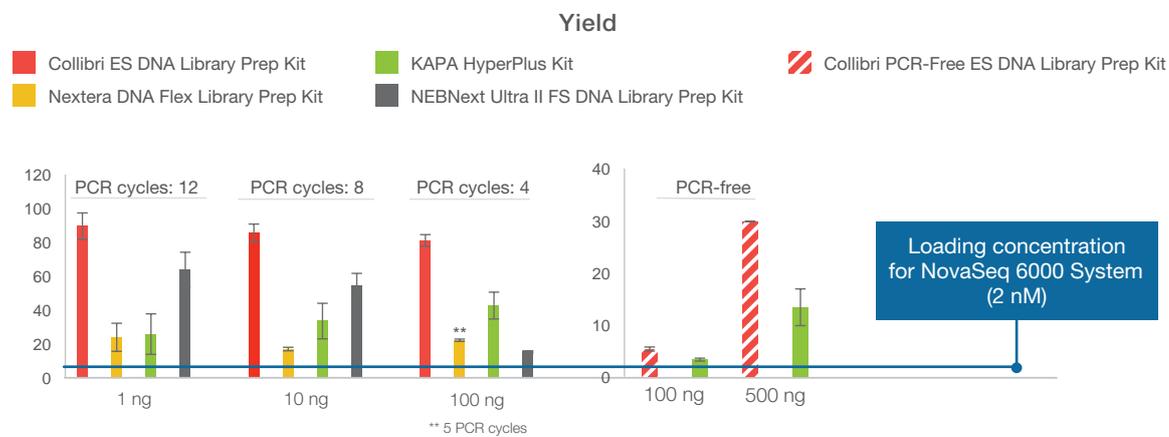


Figure 6. Yield from PCR-free Collibri ES DNA protocols is optimized to convert 100 ng of DNA into sufficient amount of library to perform quantification and more than two runs on an Illumina NovaSeq system. Resulting libraries contain fewer chimeric reads than libraries prepared using older technology.

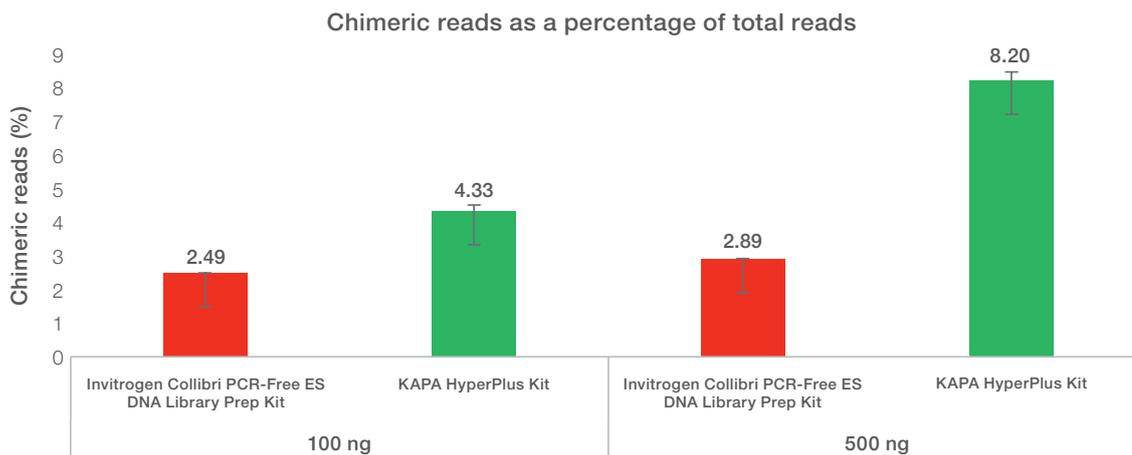


Figure 7. The Collibri PCR-Free ES DNA Library Prep Kit for Illumina Systems produces high yield of libraries with lower chimeric reads for improved data quality.

* 96 UDIs are currently available in 4 x 24 plate format. A single-plate format of 96 UDIs will be available in late 2019.

Learn more at [thermofisher.com/collibriESdna](https://www.thermofisher.com/collibriESdna)



Invitrogen™ Collibri™ ES DNA Library Prep Kits for Illumina Systems

- Sensitive variant detection from low-abundance samples
- Support input of 1–500 ng

Consistent gene coverage of biologically important genes enables greater discovery power without additional sequencing depth. Improve sensitivity of variant detection from low inputs of DNA compared to older library prep technology.

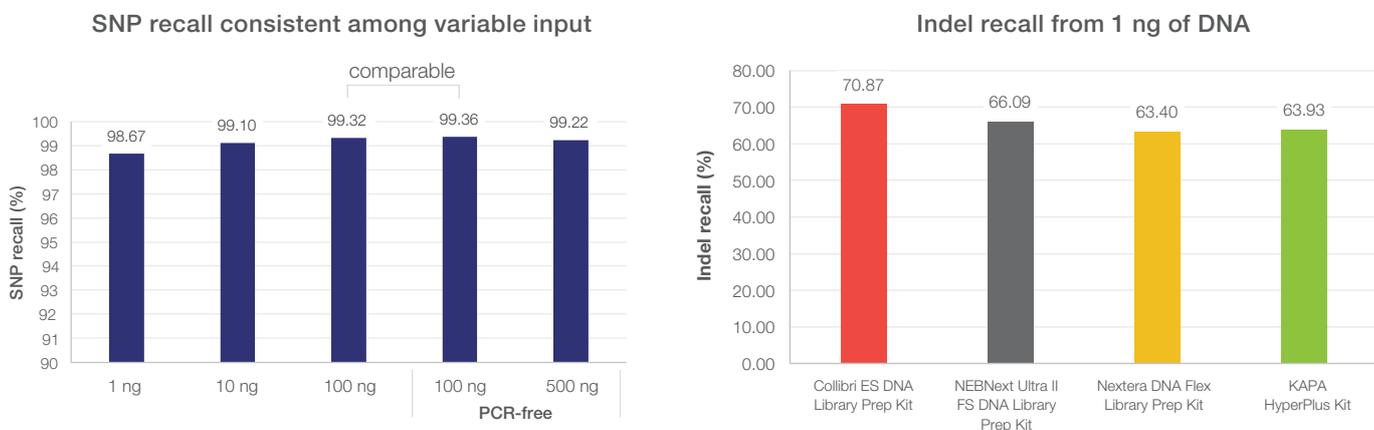


Figure 8. The Collibri ES DNA Library Prep Kit for Illumina Systems produces sensitive SNP and indel detection. Variable amounts of Coriell NA12878 DNA was converted into a library following manufacturers' recommendations and sequenced on a 2 x 150 bp paired end run on an Illumina NovaSeq 6000 System, and reads were normalized to 258 million reads per sample. Coverage was calculated by Picard Tools and SNPs were calculated by FreeBayes v1.2.0.

Learn more at [thermofisher.com/collibriESdna](https://www.thermofisher.com/collibriESdna)



Whole-transcriptome library prep

Sequence the entire transcriptome for improved library complexity

Invitrogen™ Collibri™ Stranded RNA Library Prep Kits for high-throughput Illumina systems with H/M/R rRNA Depletion Kits rapidly prepare ribosomal RNA (rRNA)-depleted whole-transcriptome RNA-Seq libraries in less than 6.5 hours with >98% strandedness—even from degraded samples such as FFPE tissue.

Unique workflow retains sample complexity

- cDNA priming is not affected by GC content
- Random oligonucleotide sequences are not incorporated into cDNA, preventing false SNPs and point mutations
- Detect the full transcriptome

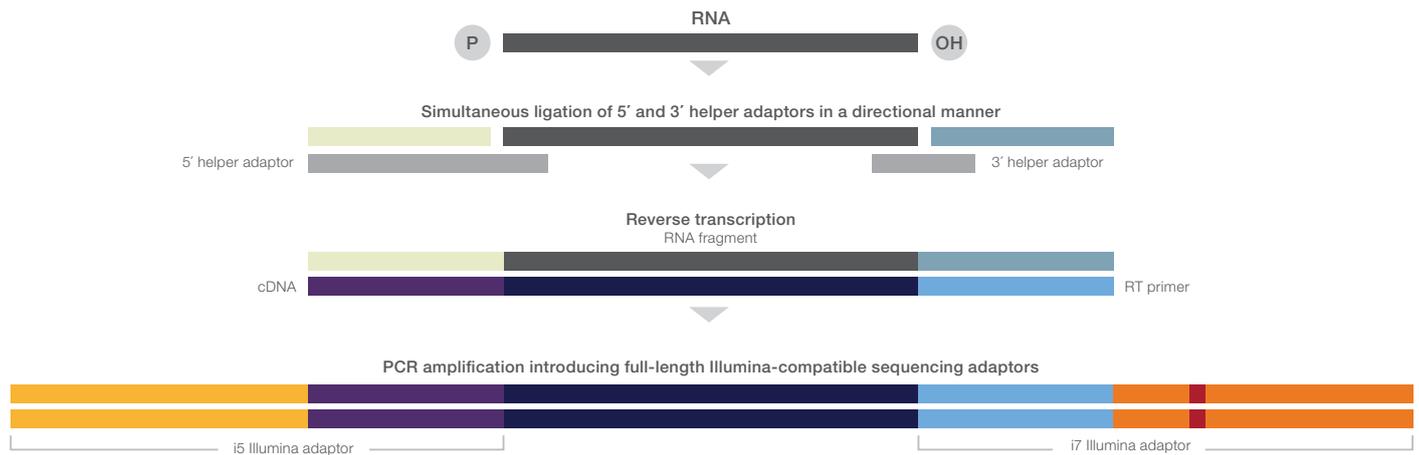


Figure 9. The Collibri Stranded RNA Library Prep Kit for Illumina Systems with H/M/R rRNA Depletion Kit uses a unique protocol in which helper adaptors are ligated directly to single-stranded RNA. Full-length adaptors are generated during PCR.

Highly efficient rRNA removal from 100–1,000 ng of human, mouse, or rat total RNA

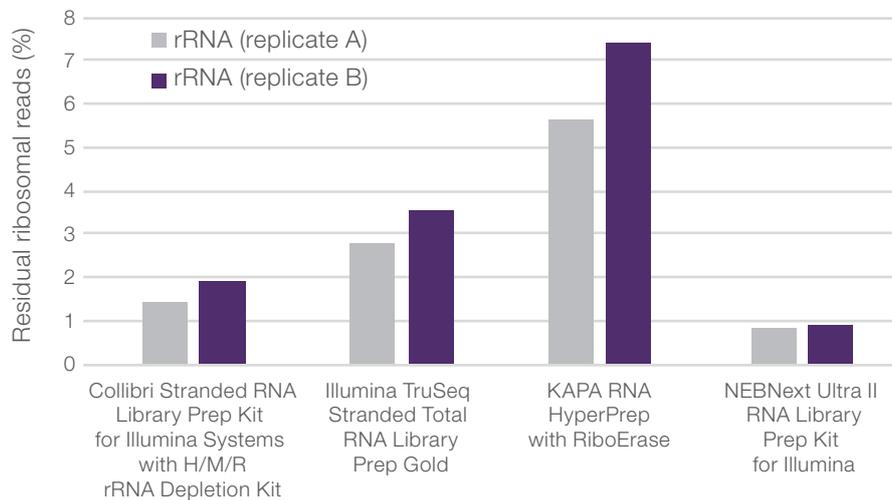


Figure 10. The Collibri Stranded RNA Library Prep Kit for Illumina Systems with H/M/R rRNA Depletion Kit provides highly efficient depletion of rRNA. Libraries were prepared from 100 ng of human brain reference RNA according to each manufacturer's recommended protocol, and the residual rRNA carryover was measured. Data were normalized to 47 million reads per sample.

Learn more at [thermofisher.com/collibriRNA](https://www.thermofisher.com/collibriRNA)



Early Access Elite Program

Collaboration is the basis for scientific discovery. Membership in the Early Access Elite Program offers you full access to Invitrogen™ high-throughput sequencing data files, insights, and portfolio roadmaps.

We are here to help you achieve scientific milestones more quickly.

Insights

Learn from program members as we share how to extend kit performance.

Progress

Evaluate new technology before commercial release.

Community

Receive VIP invitations to events and community gatherings.

Results

Failed experiments can teach us valuable lessons. Find out if someone else has tested your idea.



In order to provide the best service, program memberships are limited due to space and resource availability.

Contact your molecular biology sales representative to learn how to apply for membership in the program.



NGS library amplification

Reduce bias during amplification

The Invitrogen™ Collibri™ Library Amplification Master Mix is based on a proprietary reaction buffer that has been optimized for efficient and uniform amplification of NGS libraries regardless of GC content (Figure 11). The mixture includes Invitrogen™ Platinum™ SuperFi™ DNA Polymerase, which has exceptionally strong proofreading activity for superior amplification accuracy (Figure 12).*

- **High fidelity**—minimal error rates
- **Uniform amplification**—minimal bias regardless of GC content
- **Master mix**—ready-to-use format provides enhanced ease of use
- **Visual cues**—help decrease the risk of pipetting errors during reaction setup

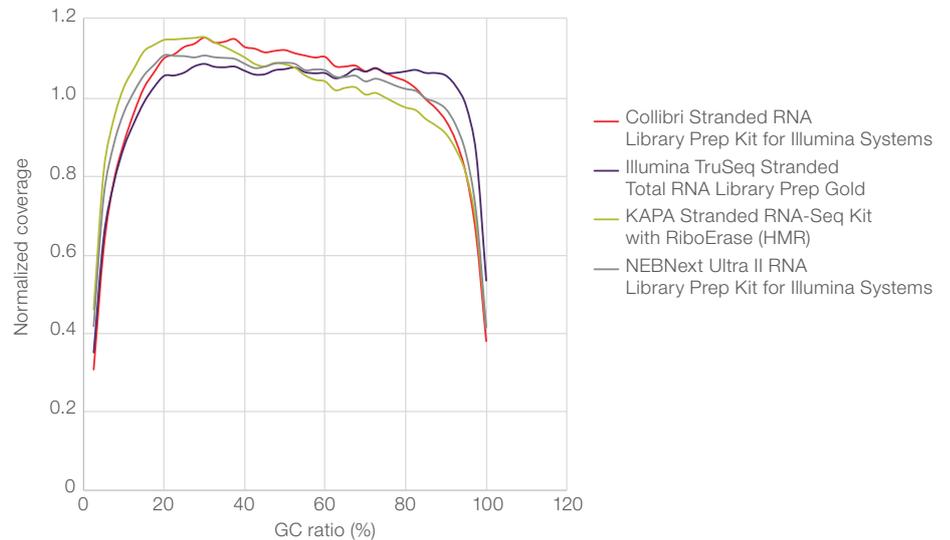


Figure 11. The Collibri Library Amplification Master Mix provides even transcript coverage. RNA libraries were generated from 100 ng of Invitrogen™ Universal Human Reference RNA (UHRR) following each manufacturer's recommended protocol.

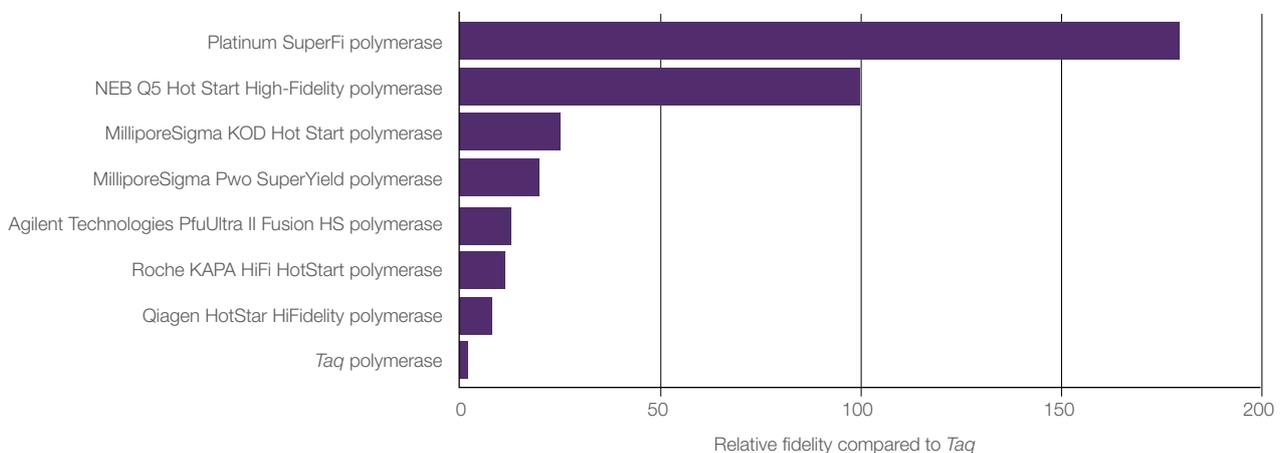
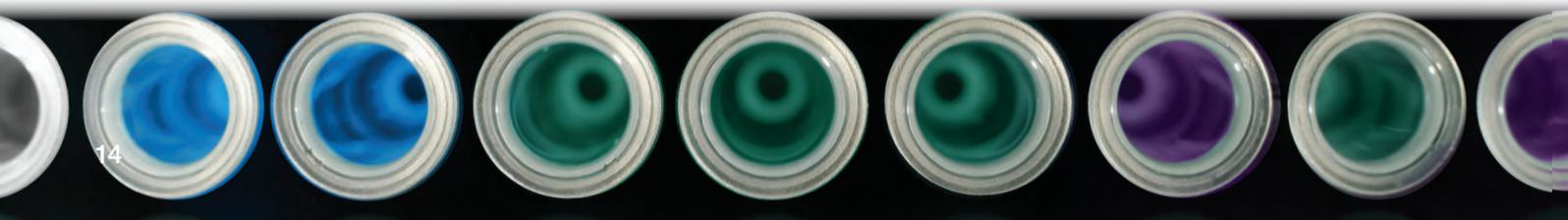


Figure 12. Formulated for NGS. The Collibri Library Amplification Master Mix is formulated for the unique demands of NGS and contains Platinum SuperFi DNA Polymerase for superior fidelity. Polymerase fidelity was measured by next-generation sequencing. Fragmented *E. coli* DNA (~300 bp) was amplified using Platinum SuperFi polymerase and other high-fidelity DNA polymerases. The polymerase error rates (error per base pair per cycle) were calculated using bioinformatics techniques. The polymerase fidelities (1/error rate) were normalized to the fidelity of Taq polymerase (set at 1). The background levels of experimental error were estimated from PCR-free library sequencing data and subtracted from error rates.

* The Collibri Library Amplification Master Mix is not recommended for amplification of primers that contain uracil.



NGS library quantification

Quantify Illumina libraries of any type

The qPCR-based Invitrogen™ Collibri™ Library Quantification Kit scales well for larger sample batches and is an ideal method to measure precious libraries (Figure 13). The Invitrogen™ Qubit™ assay has slightly lower accuracy, but the fast workflow and included quantitation software make it well suited for routine quantitation (Figure 14).

Collibri Library Quantification Kit

The Collibri Library Quantification Kit contains a ready-to-use master mix optimized for Illumina NGS library quantification. Based on Invitrogen™ Platinum™ II Taq Hot Start DNA Polymerase, the Collibri Library Quantification Kit enables convenient and accurate quantification of NGS libraries.

- **Accurate quantification of libraries**—can quantify libraries prepared from various sample types, including degraded samples
- **Ease of use**—all components ready for use, no reagent preparation necessary
- **Visual cues**—decrease the risk of pipetting errors during reaction setup
- **Platinum hot-start technology**—superior specificity, sensitivity, and room-temperature reaction setup

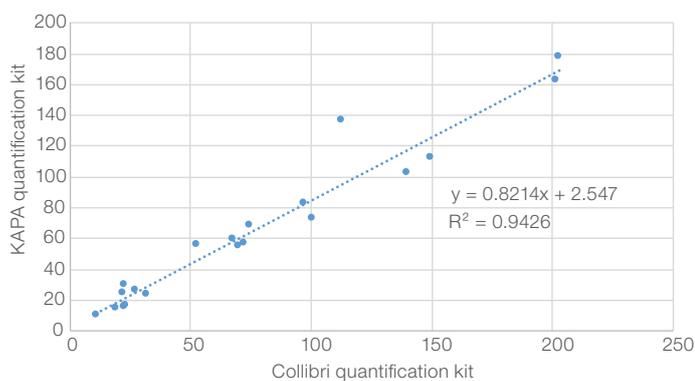


Figure 13. Collibri and KAPA quantification kits demonstrate high correlation. RNA libraries were generated using 100 ng–1 µg of total input RNA from a range of sample types according to the manufacturers' standard recommendations. All libraries were quantified using the Collibri Library Quantification Kit and KAPA™ Library Quantification Kit for Illumina platforms.

Qubit 4 Fluorometer

The Invitrogen™ Qubit™ 4 Fluorometer, when used with the Invitrogen™ Qubit™ 1X dsDNA HS Assay Kit, can accurately quantify from 10 pg/µL to 100 ng/µL of double-stranded DNA (dsDNA) even in the presence of RNA or free nucleotides. With its intuitive interface and built-in quantitation software, the Qubit 4 Fluorometer is well suited to the quantification of NGS libraries.

- **Fast quantification**—quantification of dsDNA NGS libraries in <3 seconds per sample
- **Highly accurate**—achieve high accuracy while using only 1–20 µL of sample, even very dilute samples
- **Space-saving**—the small footprint saves space on your benchtop

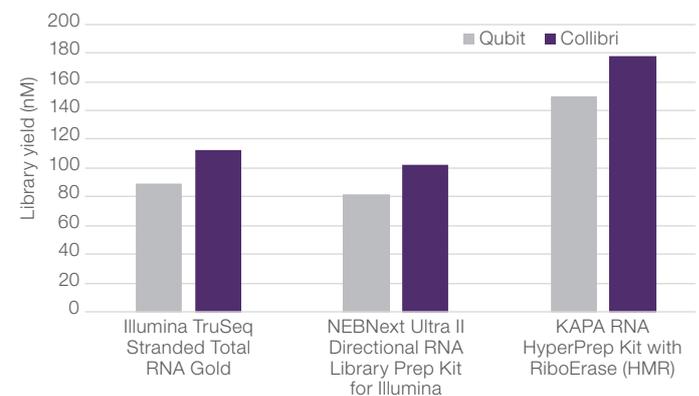


Figure 14. Measured library yields from control RNA input. RNA sequencing libraries were prepared from 100 ng of UHRR according to the manufacturers' instructions. Library concentrations were measured utilizing either the Collibri or Qubit assays, and concentrations were compared across all samples.



Thermal cyclers and plastics

The Applied Biosystems™ ProFlex™ PCR System and Applied Biosystems™ MicroAmp™ PCR plastics are designed and validated to work together and recommended for use with Colibri library prep kits.

Ultimate flexibility and throughput ProFlex PCR System

The ProFlex PCR System combines flexible configuration and control features to fit how you work today and tomorrow with the reliability you've come to expect from Applied Biosystems™ products. Interchangeable block formats allow you to maximize your throughput or run independent experiments concurrently.

The ProFlex PCR System is cloud-enabled, giving you the freedom to design and securely upload your methods, monitor runs, and check instrument availability from any mobile device or desktop computer with Connect, our free, cloud-based data storage platform.

Five interchangeable block options

The ProFlex PCR System has five different blocks that can be changed with the flip of a switch, including a 3 x 32-well block. This allows up to three experiments to be run simultaneously, completely independently of each other.



3 x 32-well



96-well



Dual 96-well



Dual 384-well



Dual flat

 = cloud-enabled instruments



- **Accessible by multiple users**—run three experiments at once
- **Flexible block configuration**—accepts five different block formats for optimization and throughput
- **Cloud-enabled**—conveniently access your instrument anytime, anywhere with Connect
- **Compatible with fleet control**—manage multiple instruments, users, and methods with Thermal Cycler Fleet Control Software

Dual 96-well and dual 384-well blocks are available for high-throughput needs. A dual flat block is also available to support Applied Biosystems™ OpenArray™ plate technology for genotyping analysis on the Applied Biosystems™ QuantStudio™ 12K Flex Real-Time PCR System as well as our sealed chip technology on the QuantStudio™ 3D Digital PCR System.

Find out more at thermofisher.com/proflex

Optimal PCR results MicroAmp PCR plastics

Applied Biosystems™ plastics have been designed and validated to work with our thermal cyclers for more than 25 years. They are Engineer Approved for reliability and precision to provide optimal PCR results.

MicroAmp PCR plastics offer:

- **High yield recovery**—thin-walled polypropylene wells ensure optimal heat transfer for maximum sample recovery
- **Reliable quality**—manufactured using medical-grade virgin polypropylene in 10k or 100k cleanrooms and validated to be free of DNA, RNases, and PCR inhibitors
- **Effective sealing**—designed to reduce cross-contamination with raised rim wells on PCR plates for effective sealing and tube strips with individual attached caps



Options for every format: choose from tubes, tube strips, plates, and adhesive seals for any throughput needed.

MicroAmp™ EnduraPlate™ plastics adhere to ANSI/SBS standards and are compatible with automation. The sturdy polycarbonate frame prevents warping during thermal cycling and contains black alphanumeric labeling for easy well identification during sample loading. EnduraPlate plastics include barcode labels on 3 sides of the plate (N, E, S) and are available in a variety of colors.

The MicroAmp 8-Tube Strip with Attached Domed Caps offers attached caps that open and close independently of each other to help prevent cross-contamination. Each tube has etched letter labeling for easy sample identification that is visible whether the tube is open or closed, and also has a graduated measuring marker to prevent pipetting errors. Dual side tabs provide ease of use for handling and labeling.

Find the plastics and accessories needed for any thermal cycler quickly.
Visit our online plastics selection guide at thermofisher.com/pcrplasticsselection

Find out more at thermofisher.com/pcrplastics



Genialis data analysis software

One solution—from lab bench to laptop, RNA to insight

RNA sequencing: a cornerstone of biomedical discovery

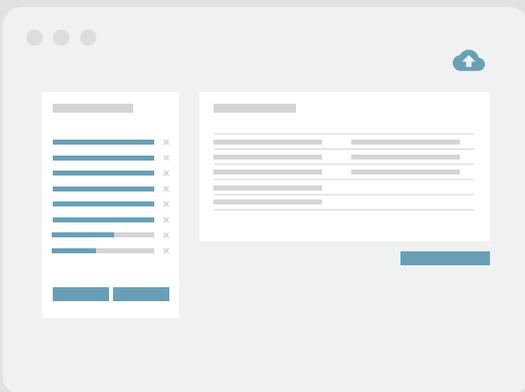
Measuring gene expression is key to understanding biological systems, dissecting dynamic processes, and inferring the causes of complex diseases and phenotypes. Colibri Stranded RNA Library Prep Kits make it possible to capture a faithful representation of virtually all types of RNA in a sample. Genialis™ software empowers analysis and interpretation of these rich and diverse data.

True end-to-end analysis software

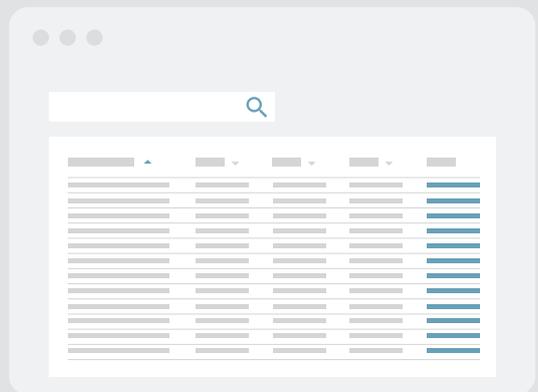
Software must make analysis and interpretation accessible to all users—data gurus, bench scientists, and decision-makers alike. With software that seamlessly links the sequencing provider to the data consumers, the days of silos are over and RNA-based discovery reigns.

Colibri Stranded RNA Library Prep Kits for Illumina Systems are verified for whole-transcriptome analysis and mRNA analysis

Standardized annotations



Elastic search engine



About Genialis, Inc.

Genialis is a data science and software company based in San Ramon, California; Houston, Texas; and Ljubljana, Slovenia. Their team of biologists, data scientists, and software engineers is passionate about biomedical R&D. Genialis™ Expressions software is an end-to-end

solution that streamlines NGS data management, analysis, and exploration. Scientists from leading biopharma companies, translational medicine teams, and research institutes rely on our expertise and software to drive discovery.

Genialis delivers more than just results



Sequencing data at scale

- Automated, verified workflow matches chemistry of Colibri library prep kits
- Computation scales with cloud-based IT infrastructure
- Flexible Python-based software developer kit (SDK) grants complete programmatic control



Operating costs and turnaround time

- Automatable processes integrate with current workflows
- Preconfigured QC reports minimize hands-on time
- Industrial-strength workload manager welcomes NGS throughput



Scientific accuracy and reproducibility

- Auto-generated annotation templates capture standard ontology metadata
- Versioned pipelines benchmark each tool and parameter
- Provenance graph records complete history of every sample and data object

Flexible and reproducible analytics



Interactive visual exploration



To request a trial, contact sales@genialis.com

For more information, please visit genialis.com



Ordering information

Product	Quantity	Cat. No.
PCR-free PS DNA library prep kits		
Collibri PCR-free PS DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set A, 1–24))	24 preps	A38609024
Collibri PCR-free PS DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set B, 25–48))	24 preps	A43608024
Collibri PCR-free PS DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set C, 49–72))	24 preps	A43609024
Collibri PCR-free PS DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set D, 73–96))	24 preps	A43610024
Collibri PCR-free PS DNA Library Prep Kit for Illumina Systems (with CD Indexes)	24 preps	A38608024
Collibri PCR-free PS DNA Library Prep Kit for Illumina Systems (with CD Indexes)	96 preps	A38610096
PS DNA library prep kits		
Collibri PS DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set A, 1–24))	24 preps	A38613024
Collibri PS DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set B, 25–48))	24 preps	A43611024
Collibri PS DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set C, 49–72))	24 preps	A43612024
Collibri PS DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set D, 73–96))	24 preps	A43613024
Collibri PS DNA Library Prep Kit for Illumina Systems (with UD Indexes)	96 preps	Coming soon*
Collibri PS DNA Library Prep Kit for Illumina Systems (with CD Indexes)	24 preps	A38612024
Collibri PS DNA Library Prep Kit for Illumina Systems (with CD Indexes)	96 preps	A38614096
PCR-free ES DNA library prep kits		
Collibri PCR-free ES DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set A, 1–24))	24 preps	A38602024
Collibri PCR-free ES DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set B, 25–48))	24 preps	A43602024
Collibri PCR-free ES DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set C, 49–72))	24 preps	A43603024
Collibri PCR-free ES DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set D, 73–96))	24 preps	A43604024
Collibri PCR-free ES DNA Library Prep Kit for Illumina Systems (with CD Indexes)	24 preps	A38545024
Collibri PCR-free ES DNA Library Prep Kit for Illumina Systems (with CD Indexes)	96 preps	A38603096
ES DNA library prep kits		
Collibri ES DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set A, 1–24))	24 preps	A38606024
Collibri ES DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set B, 25–48))	24 preps	A43605024
Collibri ES DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set C, 49–72))	24 preps	A43606024
Collibri ES DNA Library Prep Kit for Illumina Systems (with UD Indexes (Set D, 73–96))	24 preps	A43607024
Collibri ES DNA Library Prep Kit for Illumina Systems (with UD Indexes)	96 preps	Coming soon*
Collibri ES DNA Library Prep Kit for Illumina Systems (with CD Indexes)	24 preps	A38605024
Collibri ES DNA Library Prep Kit for Illumina Systems (with CD Indexes)	96 preps	A38607096
RNA library prep kits		
Collibri Stranded RNA Library Prep Kit for Illumina Systems	24 preps	A38994024
	96 preps	A38994096
Collibri Stranded RNA Library Prep Kit for Illumina Systems with H/M/R rRNA Depletion Kit	24 preps	A39003024
	96 preps	A39003096
Dynabeads mRNA DIRECT Purification Kit	5 mL	61011
ERCC RNA Spike-In Mix	1 kit	4456740
ERCC ExFold RNA Spike-In Mixes	1 kit	4456739

* Available in late 2019.



Ordering information

Product	Quantity	Cat. No.			
Library quantification					
Collibri Library Quantification Kit	100 rxns	A38524100			
	500 rxns	A38524500			
Qubit 4 Fluorometer, with Wi-Fi	1 instrument	Q33238			
Qubit 1X dsDNA HS Assay Kit	100 assays	Q33230			
Qubit 4 NGS Starter Kit, with Wi-Fi	1 kit	Q33240			
Library amplification					
Collibri Library Amplification Master Mix	50 rxns	A38539050			
	250 rxns	A38539250			
Collibri Library Amplification Master Mix with Primer Mix	50 rxns	A38540050			
	250 rxns	A38540250			
Applied Biosystems accessories					
Veriti 96-Well Thermal Cycler	1 instrument	4375786			
ProFlex 96-Well PCR System	1 instrument	4484075			
MicroAmp EnduraPlate Optical 96-Well Clear Reaction Plates with Barcode	20 plates	4483354			
MicroAmp Optical 96-Well Reaction Plate	10 plates	N8010560			
MicroAmp Clear Adhesive Film	100 films	4306311			
MicroAmp 8-Tube Strip with Attached Domed Caps, 0.2 mL	125 strips	A30589			
	Complete system Cat. No.	Block only Cat. No.	Instrument + 5-year warranty with Rapid Exchange Cat. No.		
ProFlex 96-well PCR System	4484075	4483637	A27934		
ProFlex 3 x 32-well PCR System	4484073	4483638	A28986		
ProFlex 2 x 96-well PCR System Kit	4484076	4484071	A27937		
ProFlex 2 x flat PCR System	4484078	4484074	A27931		
ProFlex 2 x 384-well PCR System	4484077	4484072	A30229		
Recommended plastics					
3 x 32-well block	Cat. No.	96-well block	Cat. No.	384-well block	Cat. No.
MicroAmp TriFlex 3 x 32-Well PCR Reaction Plate	A32811	MicroAmp EnduraPlate Optical 96-Well Clear Reaction Plates with Barcode	4483354	MicroAmp Optical 384-Well Reaction Plate	4343370
MicroAmp 8-Tube Strip with Attached Domed Caps, 0.2 mL	A30589	MicroAmp TriFlex 3 x 32-Well PCR Reaction Plate	A32811	MicroAmp Optical 384-Well Reaction Plate with Barcode	4309849
		MicroAmp 32-Well Clear Adhesive Film	A32812		
MicroAmp Reaction Tube with Cap, 0.2 mL	N8010540	MicroAmp 8-Tube Strip with Attached Domed Caps, 0.2 mL	A30589	MicroAmp EnduraPlate Optical 384-Well Clear Reaction Plates with Barcode	4483285
MicroAmp 32-Well Clear Adhesive Film	A32812	MicroAmp Clear Adhesive Film	4306311	MicroAmp Clear Adhesive Film	4306311
Purification					
	10 preps	12183020			
PureLink RNA Mini Kit	50 preps	12183018A			
	250 preps	12183025			
MagMAX <i>mirVana</i> Total RNA Isolation Kit	96 preps	A27828			
KingFisher Flex Purification System with 96 Deep-Well Head	1 system	5400630			



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