Illumina Workflow Design and Evaluation Service

Collaborate with experts at Illumina Solutions Centers to evaluate Illumina technology

- Evaluate Illumina sequencing and microarray platforms using researcher-supplied samples prior to purchase
- Leverage Illumina expertise, workflows, and laboratories to assess Illumina platforms and solutions
- Access Illumina sequencing or microarray data sets to inform purchasing decisions and accelerate implementation

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Introduction

When designing a next-generation sequencing (NGS) or microarray experiment, researchers are confronted with important decisions related to choice of sample preparation, sequencing systems, and data analysis methods. The Illumina Workflow Design and Evaluation Service helps to address these questions by providing access to the Illumina portfolio of Research Use Only (RUO) products and expert-designed workflows at Illumina Solutions Center locations (Figure 1).

Collaborate with Illumina experts from sample to data

The Illumina Workflow Design and Evaluation Service begins with a consultation to determine the most appropriate sample-to-data solution based on specific research goals. The experts at Illumina Solutions Centers work collaboratively with researchers to define the experimental parameters, including number of samples, required controls, library preparation protocol, and data analysis deliverables, to ensure the best performance for their planned NGS experiments (Figure 2).

Researcher-submitted DNA or RNA samples first undergo a quality control (QC) assessment. Samples are then processed through the selected NGS or microarray workflow with additional QC as applicable. Data generated using NGS workflows can be analyzed using BaseSpace[™] Sequence Hub, the Illumina cloud-based genomics computing environment. For microarray workflows, generated data is analyzed and visualized using GenomeStudio[™] Software. Additional tertiary analysis and downstream reporting tools may also be available for some NGS and microarray workflows.

Researchers can also access post-service consultations to review the entire sample-to-answer workflow and discuss steps to successfully implement these workflows at their laboratories. All deliverables, including generated data and analysis reports, are provided through BaseSpace Sequence Hub or an external hard drive.



Figure 1: The growing network of global Illumina Solutions Center locations.



Figure 2: The streamlined Illumina Workflow Design and Evaluation Service process provides rapid data delivery for any Illumina sequencing system or application.

Evaluate Illumina technology with researcher-submitted samples

Rather than relying on data from common reference samples,^{*} the Illumina Workflow Design and Evaluation Service generates data from samples provided by researchers. Sequence-ready DNA libraries prepared using custom or third-party library preparation kits can also be provided for researchers interested in evaluating specific Illumina sequencing platforms. Following the service, researchers can make a more appropriate comparison between data generated from Illumina's NGS or microarray workflows and their current methods.

To begin a consultation, inquire about the Illumina Workflow Design and Evaluation Service, or confirm availability in your region, contact your local Illumina account manager or Illumina Solutions Center (solutionscenter@illumina.com).

* Samples are limited to purified, noninfectious DNA or RNA.

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Summary

Establishing an optimized sample-to-answer workflow is critical during the implementation and startup phase of integrating new NGS or microarray technology. With the Illumina Workflow Design and Evaluation Service, researchers can evaluate workflows using their own samples with expert support to accelerate the journey towards successful genomics research.

Ordering information

Product	Catalog no.
NovaSeq [™] 6000/X System Service	20016091
NextSeq [™] 550/1000/2000 System Service	15067736
MiSeq [™] System Service	15067735
MiniSeq [™] System Service	20003924
iSeq [™] 100 System Service	20023613
Microarray Service	20013962

Service availability is dependent on Illumina Solutions Center location.

Service pricing is based on single flow cell or microarray run.

Maximum of 12 samples when in-house sample preparation is required, consult with Illumina Solutions Center to confirm project scope.

No sample maximum if sequence-ready libraries are provided for evaluation on Illumina sequencing platforms.