Juno Targeted DNA Sequencing Library Preparation System

Affordable scalability for mid-to-high-throughput next-generation sequencing

FLUIDIGM®

The Juno™ Targeted DNA Sequencing Library Preparation System allows you to easily scale next-generation sequencing (NGS) sample throughput. Providing operational efficiency for detecting known or *de novo* DNA variants, the system is ideal for routine testing or large-scale screening projects. Microfluidic processing automates amplicon enrichment and sample barcoding, enabling you to accurately sequence more samples and manage the growing demand for testing in a cost-effective manner.

Scale your targeted DNA library preparation using Juno and multiple sample throughput options, up to 192 samples per processing run and thousands of genomic loci targeted per sample. Design your custom NGS panel with ease, either online or with our consultative, expert assay design services. You may add amplicon assays over time so your panel content will always be up to date.

Highlights

Easily scale library preparation from dozens to thousands of samples per week.

Control costs by reducing reaction volumes and total hands-on time per sample.

Design with ease your custom NGS panels from a few to thousands of genomic variants.

Targeted DNA Sequencing Library Preparation	LP 48.48 IFC	LP 192.24 IFC
Number of samples per run	Up to 48	Up to 192
Number of amplicon assays per sample	Up to 4,800	Up to 2,400
Amplicon length	150–500 base pairs	150–500 base pairs
Workflow time from DNA to NGS-ready libraries (1 run)	8 hours for 48 NGS-ready libraries, including 4 hours of walkaway automation	9.5 hours for 192 NGS-ready libraries, including 5.5 hours of walkaway automation
Sample throughput in 24 hours	Up to 96 sample libraries	Up to 384 sample libraries
Number of samples multiplexed per NGS run	Up to 1,536 using Fluidigm barcodes	Up to 1,536 using Fluidigm barcodes

Juno Library Preparation Workflow

1

DESIGN PANEL
Enter genes or genomic coordinates online using the D3™ assay design portal.

2

TRANSFER
Transfer DNA samples, assay primers and other reagents to the integrated fluidic circuit (IFC). Samples and reagents combine controlled reactions via the IFC.

3

CONSTRUCT LIBRARIES
Automate workflow for targeted amplification and sample barcoding within the IFC. Adapter addition and cleanup are completed in a single tube.

4

SEQUENCE
Perform NGS using an Illumina® system. With these libraries you have the capability of multiplexing up to 1,536 samples per sequencing run.

Maximize high-throughput NGS

Scale your NGS library production from dozens to thousands of libraries per week. Choose from multiple sample formats to meet your lab's needs for throughput and turnaround time.

Realize operational efficiency

Lower your reagent and primer costs by reducing individual reactions to nanoscale volumes using microfluidic technology. Achieve additional labor savings by reducing total hands-on time per sample in mid-to-high-throughput settings.

Simplify NGS panel design

Our D3 assay design delivers expert design support and optimized PCR primers in a format tailored to your needs.

Ordering information

Product Name	Part Number	IFC Type and Quantity
Targeted DNA Seq Library Assays	ASY-MPX ASY-MPX-P	Various
Targeted DNA Seq Library Adapter Set	101-2412	20 IFCs
Targeted DNA Seq Library Barcode Plates	101-0744	192.24–40 IFCs 48.48–160 IFCs
Advanta™ NGS Library Prep Reagent Kit	101-7663 101-7666 101-7667 101-7669	LP 48.48, 2 IFCs LP 48.48, 10 IFCs LP 192.24, 2 IFCs LP 192.24, 10 IFCs
Juno Accessories Kit (IFCs with accessories)	101-2334 101-2333 101-2349 101-2348	192.24–5 IFCs 192.24–10 IFCs 48.48–5 IFCs 48.48–10 IFC

Learn more at

fluidigm.com/juno

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