

Targeted DNA Sequencing Library Preparation with Juno

Frequently Asked Questions

ASSAYS

(ASY-MPX-XS, ASY-MPX-S, ASY-MPX-M, ASY-MPX-L)

What is the minimum DNA input?

100 ng input per sample for human genomic DNA or for DNA of equivalent genome size. For larger genomes, contact Fluidigm support at fluidigm.com/contacts for guidance on input requirements.

What is provided with my order of Targeted DNA Seq Library assays?

Assays are provided in a 96-well plate, normalized to 2.5 μ M per forward primer and 0.833 μ M per reverse primer in each assay pool. The assay pools are provided in suspension buffer. Volume varies depending on assay order size.

How many IFCs can I run with the provided assays?

Pooled assays are provided in different volumes, based on order size:

Part Number	Assay Pool Volume (μ L)	LP—48.48 IFCs	LP—192.24 IFCs
ASY-MPX-XS (< 200 assays) or ASY-MPX-S (> 200 assays)	25	12	25
ASY-MPX-M	100	50	100
ASY-MPX-L	200	100	200

What if I want uniplex assays?

The default delivery format is to deliver assays pre-pooled. For assay delivery in a uniplex format, please contact our Assay Design Group at assay_design_group@fluidigm.com.

What information is provided in the customer informatics packet?

A Microsoft® Excel® file that contains the primer sequences, genomic coordinates, GC content, multiplexed primer stock map of primer position in plates, and amplicon sequence and length.

What are the maximum supported amplicon count and amplicon size?

We support up to 2,400 amplicons per sample on the LP—192.24 IFC and up to 4,800 amplicons per sample on the LP—48.48 IFC. Standard amplicon sizes are between 150 and 500 bp.

How should I store my targeted DNA sequencing library prep assay primers?

Primer pools are stable for up to one year at –20 °C if 96-well plates remain sealed to avoid evaporation.

What species and targets do you design assays to?

Targeted DNA Seq Library assays are designed to human species for targets with an associated RefSeq ID, gene name, target sequence or genome coordinate. (See the D3 Assay Design User Guide, PN 100-6812.) Requests for other species can be submitted to the Assay Design Group for evaluation at assay_design_group@fluidigm.com.

What is the process for redesigning assays?

The primer pooling algorithm generates 20 primer pools for the LP—192.24 IFC and 40 pools for the LP—48.48 IFC. The pools are designed for minimal interactions among primers and minimal nonspecific amplification. Four empty inlets are available on the LP—192.24 IFC and up to eight empty inlets are available on the LP—48.48 IFC to redesign low-performance primers or add primers. Redesigned primers or additional primers can be ordered through D3 (d3.fluidigm.com/account/login).

SYSTEM

What methods are supported by the Juno instrument?

Juno is preprogrammed to perform multiple methods with push-button ease. Juno methods include targeted DNA sequencing library preparation, IFC control and thermal cycling for SNP genotyping upstream of Biomark™ HD or EP1™ systems, and IFC control for gene expression, copy number analysis or digital PCR upstream of Biomark HD.

Juno is a universal IFC controller, negating the need for individualized IFC legacy controllers such as AX, MX, HX and RX. Before performing a new method on Juno, ensure that your Juno system is updated with all necessary software and IFC interface plates. Contact technical support at fluidigm.com/contacts to confirm method readiness with Juno.

Can I use the LP—192.24 IFC on the AX Controller?

No, the LP—192.24 IFC was designed to work specifically with the Targeted DNA Seq Library Reagent Kit on Juno™ and is not compatible with the AX Controller. The LP—48.48 IFC and appropriate reagent kits are designed for use with the AX Controller.

Can I use my existing Access Array kit and assays on Juno with the Juno LP—192.24 IFC?

No, the LP--192.24 IFC was designed to work specifically with the Targeted DNA Seq Library Reagent Kit on Juno.

Do I need to upgrade my Juno system?

If your system accessories do not contain the Barrier Tape Applicator, TX Interface Plate and 7 Drawer Interface Plate holder, you will need to order the Juno LP—Upgrade Kit (101-2026).

Do I need to update my software on Juno?

Yes, new software is required and available for download. Please visit fluidigm.com/software for the latest version of the Juno software, v3.3.4. Follow the directions in the Juno System User Guide (PN 100-7070) for installation.

For additional help, contact technical support at tech.support@fluidigm.com or see contact options at fluidigm.com/contacts.

Can I use automation with the Targeted DNA Seq Library Reagent Kit?

Contact Fluidigm support at tech.support@fluidigm.com or fluidigm.com/contacts for guidance.

REAGENT KIT

(PN 101-0406)

Which sequencing systems are compatible with the Targeted DNA Seq Library Reagent Kit?

The Targeted DNA Seq Library Reagent Kit is designed to prepare libraries for sequencing on Illumina®, MiniSeq™, MiSeq™, NextSeq™ and HiSeq® systems.

What do I need to perform targeted DNA sequencing library preparation?

A. Targeted DNA Seq Library Reagent Kit (101-3052, 101-3089, 101-5668, 101-5669), containing:

- TSP Sample Loading Reagent
- TSP Adapter Mix
- PCR-Water
- DNA Dilution Reagent
- TSP Harvest Reagent
- TSP Assay Loading Reagent
- 4X TSP Master Mix
- DNA Polymerase

B. Targeted DNA Seq Primer Pools (ASY-MPX-XS, ASY-MPX-S, ASY-MPX-M, ASY-MPX-L)

C. Targeted DNA Seq Barcode Plates (101-0744)

D. IFCs, Barrier Tape and Control Line Fluid, which can be ordered as a bundled kit: Juno Accessories Kit (101-2333, 101-2334, 101-2348, 101-2349)

Additional Accessories

Juno LP—192.24 Barrier Tape Applicator (101-2027)

CONSUMABLES

How quickly do I need to use the IFC after the foil pouch is opened?

IFCs must be used within 24 hours of opening the sealed foil pouch. The exception is the Flex Six IFC, which has a 90-day lifetime. However, the lifetime of a Flex Six IFC will decrease if it is not handled according to Fluidigm guidelines. For example, postponing the post-PCR script or altering thermal cycling conditions shortens the expected lifetime of a Flex Six IFC.

What is the shelf life for IFCs?

IFCs can be used for one year after they are received if they are unopened and stored at room temperature.

ORDERS

What is included in the Fluidigm Installation Qualification/Operation Qualification (IQOQ) services?

The Fluidigm IQOQ service is a reliable, secure and convenient solution for customers using Fluidigm equipment in GLP/GMP environments. Installation Qualification verifies that an instrument is installed properly to Fluidigm specifications and that the customer's lab environment is suitable for operation. Operation Qualification is a performance test that, at the time of testing, verifies the system functions according to Fluidigm operational specifications where the instrument is installed.

Fluidigm can help you meet regulatory compliance by qualifying the installation and operation of your Biomark, Biomark HD or EP1 system and by certifying your Fluidigm thermal cyclers, Juno or Access Array instruments, and IFC Controllers.

How do I place orders?

Find a sales representative.

Locate a distributor.

Phone: 866 359 4354, extension 2

Fax: 650 589 2548

Email: sales.admin@fluidigm.com

What are the delivery options?

Standard, non-customized consumable orders typically ship within three to five business days. Shipping charges will be 2% of your shopping cart subtotal (\$50.00 minimum charge), with an additional \$20.00 handling fee for consumable reagent orders requiring dry ice.

Your products will ship via FedEx® Overnight®, selected as the best way to maintain quality delivery and product integrity.

If you have questions about shipping, please [contact us](#).

For information about shipping outside the United States, contact your [regional Fluidigm representative](#).

What currencies do you accept?

For now, online ordering is available only to organizations in the United States and its territories. We do business online only in U.S. dollars (USD). To place international orders, email us at sales.admin@fluidigm.com or contact your local sales representative or distributor.

How do I find my local distributor?

Online ordering is not currently offered outside the United States. You can contact your country's regional distributor to purchase Fluidigm products directly. [Locate your local distributor here](#).

How do I request a quote?

To request a sales quote online:

- For Fluidigm systems: Select Inquire to request a quote from your local sales representative.
- For general consumables: Select Inquire to send a quote request.
- For offline quotes: Contact your local sales representative or dial 650 266 6170.

How do I cancel, add, or modify orders?

We process and ship orders quickly, so there is limited time to change or cancel them. To make changes to an online order, contact our sales administration team immediately at sales.admin@fluidigm.com or 866 359 4354, extension 2, and we'll do our best to assist you.

How do I sign in to my account?

Click the **Menu** icon to the left of the Search field to get the login prompt. Sign in with your email address and password. You can update account settings, manage other account details and see previous online orders and support requests.

How do I supply my sales tax exemption?

If your institution benefits from a sales tax exemption, please send your Sales Tax Exempt Certificate to credit@fluidigm.com with "TAX" in the attention field. We charge applicable sales tax unless we receive a Sales Tax Exempt Certificate.

How can I track shipments?

To check your order status or track your shipment, you can request a FedEx® tracking number by emailing sales.admin@fluidigm.com and including your sales order number. If you do not have your sales order number, please provide other details of the order, including the date, the name of your organization, contact name and purchase order number (if applicable).

How can I request a copy of my invoice?

You can request a copy of your invoice from our accounts receivable team by emailing accountsreceivable@fluidigm.com. Please include your sales order number, the name of your organization and contact name. Invoices are issued after items have been shipped.

How do I view my online order history?

You can view online order history by selecting Orders. Orders are listed in chronological order. To get a record of your offline orders, including those placed by email, fax or phone, email your request to sales.admin@fluidigm.com.

How do you manage security?

For online payments we use the Authorize.Net Payment Gateway, which provides the infrastructure and security needed to send transaction data reliably and securely. All secure logins and checkouts use the latest Secure Sockets Layer (SSL) technology to encrypt your credit card and password information. To protect your financial information, Fluidigm keeps no record of your credit card information. You do not have to re-enter your credit card for each new order because it is stored securely using Payment Card Industry standards.

Can I order for multiple labs?

Yes, you can. If you are ordering for separate labs with different shipping addresses, you must enter them individually. If they use a single central receiving address, you can order for more than one lab at a time on the same purchase order or purchasing card.

I have a quote from my sales representative. Can I use that quote online?

Quotes from sales representatives cannot be redeemed online at this time, but we're working to allow that in the future.

What is Secure Sockets Layer (SSL)?

The Secure Sockets Layer uses encryption enabled by our server's SSL Certificate. When your browser points to our secure domain, an SSL handshake authenticates our server and your browser, establishing an encryption method and a unique session key. You then have a secure session, with your privacy and message integrity protected.

We routinely schedule security audits of our code and data exchange procedures to ensure that all of our processes are secure and compliant with frequently published security standards.

For technical support visit fluidigm.com/support

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