World leader in HLA by NGS

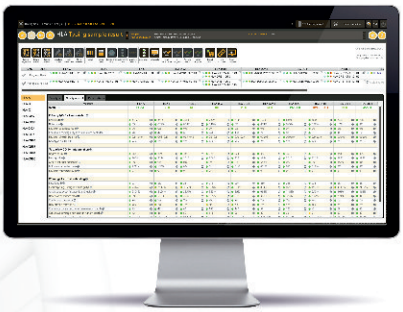
RUO

Monotype HLA™ Single-locus HLA Typing by NGS - Assay and Software

TYPING SINGLE HLA LOCI FOR DISEASE ASSOCIATIONS AND DRUG SENSITIVITY?

Monotype HLA™ is a suite of Assay and Software combination products for single-locus HLA typing.

- The assay leverages the power of the Holotype HLA™ workflow, providing high throughput and high resolution genotyping to facilitate disease association research, population genetics studies and drug sensitivity testing.
- The analysis of high resolution HLA data is supported by HLA Twin™, the most accurate genotyping software for the processing of NGS data.



Product Configurations

PRODUCT NAME	SIZES	INDEX SETS	EXAMPLE TESTS (see comprehensive list below)
Monotype HLA-B	24 or 96	4 x 24 sets 3 x 96 sets	Abacavir (B57), Ankylosing Spondylitis (B27)
Monotype HLA-DQ	24 or 96	4 x 24 sets 3 x 96 sets	Celiac (DQ2 and DQ8), Narcolepsy (DQB1*06:02)
Monotype HLA-AB	24 or 96	4 x 24 sets 3 x 96 sets	Platelet donor testing
Monotype Custom	24 or 96	4 x 24 sets 3 x 96 sets	Diabetes (A1, A24), Multiple Sclerosis (A3), Arthritis (DR1 and DR4)

Customize: *If you are interested in any other HLA locus to be typed, please contact us directly, your local distributor or send an inquiry to sales@omixon.com.*

Product Highlights

- Identical protocol for integration with Holotype HLA™ to maximize flow cell usage
- Amplify only the loci you need for optimal flow cell usage
- Up to 576* unique barcodes available for ultra-high throughput
- Simple workflow and technician-friendly protocol
- Automated protocol for pre/post PCR
- Whole gene amplification
- Optimized size-selection of fragmented amplicon libraries to help resolve phase and reduce ambiguity
- Indexed adaptors (avoid bias from 2nd PCR step)
- Multiple safe stopping points
- Fully phased whole gene consensus sequences
- Customizable kit configuration
- Flexible sequencing strategy to support pooling of different libraries
- Kit splitting and flexibility
- Elimination of error-prone pipetting steps

* *Lead time for >192 barcodes varies. Consult your local sales representative for an accurate estimated delivery.*

Sample Preparation

- Only 0,1 µg of DNA required for single locus amplification
- Successfully amplified whole blood, cord blood, buccal swabs & saliva

Library Preparation

- Customized set of Monotype configuration available to run single locus tests for 11 HLA loci
- Flexible setup of Monotype tests
- Per-sample indexing up to 576 samples per run***
- 4 hours hands on time for 192 samples
- < 48 hours turnaround time from sample to result
- Monotype libraries can be combined with other libraries for optimized sequencing cost

Sequencing

- MiSeq, MiniSeq, iSeq and NextSeq supported
- Any type of flow cell supported depending on throughput
- 300 and 500-cycle chemistry supported

Analysis with HLA Twin

- Automated targeted genotyping after the sequencing run
- Two independent algorithms in HLA Twin™ for orthogonal validation
- Supporting clinical workflow and research
- 24 Quality Control metrics for confident assignment
- Support for Windows, Linux and MacOS, standalone and server-client setups

WHAT IS INCLUDED IN THE KIT?
HLA specific primers for 24 or 96 samples
Library Preparation Reagents for 24 or 96 samples
96 Well Adaptor Plate with indexed adaptors
NGS Excel Workbook
HLA Twin™ - dual algorithm genotyping software

TECHNICAL AND EQUIPMENT REQUIREMENTS
MiSeq, MiniSeq, iSeq or NextSeq
Thermal Cycler
Plate fluorometer or qPCR instrument
64-bit computer with a minimum of 16 GB RAM
Library Size Selection: Pippin Prep or Magnetic Beads

All timings are for 192 samples, Monotype HLA V2.2

* *Timings are based on the Biomek 4000 by Beckman Coulter.*

** *On a MiSeq 300-cycle micro flow cell*

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