



# HOLOTYPE HLA™

Flexible,  
Unambiguous,  
Automated  
HLA Typing by NGS

## FAST PROTOCOL

Pre-master mixed PCR reagents  
Sample to result in < 48 hours  
Lowest hands-on time

## FLEXIBLE PRODUCT CONFIGURATIONS

5, 7, 11 or custom loci

## SCALABLE

4-288 samples per run

## AUTOMATED

Pre-PCR, Post-PCR & Software Analysis

## COMPREHENSIVE

Whole gene consensus sequences

# HLA TWIN™ SOFTWARE

DUAL-ALGORITHM GENOTYPING SOFTWARE TO DELIVER THE MOST ACCURATE, HIGH THROUGHPUT HLA GENOTYPING RESULT



## HIGHLIGHTS

Confidence by checking every locus for every sample  
 Analyze data against the IMGT/HLA database  
 DRB, DQ Linkage Disequilibrium checks  
 Complete Novel and Null allele detection  
 Fully automated analysis after Illumina sequencing run  
 Export genotyping results - HML, PDF, JSON, XLS  
 Integration with LIMS, such as Histotrac and mTilda  
 Simple assignment and multi-layer approval workflows

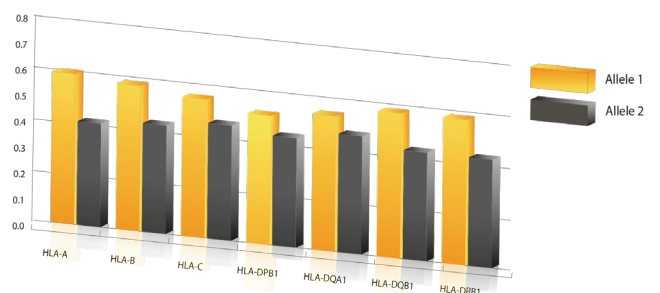
## DATA VISUALIZATION & STATISTICS

HELPS TO TROUBLESHOOT AND INTERPRET ANY POTENTIAL QUALITY ISSUES BASED ON 24 QUALITY CONTROL METRICS

TRAFFIC LIGHT SYSTEM



ALLELE BALANCE



## TECHNICAL REQUIREMENTS

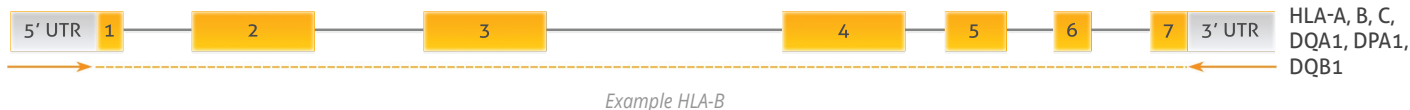
	DESKTOP	SERVER		CLIENT
		Typing Server	Reporting Server	
CPU		64-bit multi-core		
MEMORY (MIN)	16 GB	24 GB	6 GB	4 GB
OPERATION SYSTEM	Windows, Linux, macOS	Windows, Linux		Windows, Linux, macOS

# HOLOTYPE HLA™ ASSAY

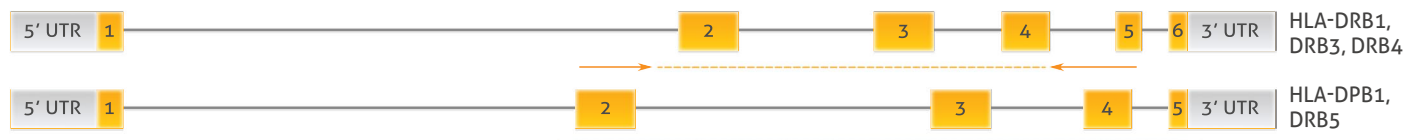
LICENSED ASSAY FROM THE CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP) THAT PROVIDES AMPLIFICATION AND LIBRARY PREPARATION REAGENTS FOR COMPREHENSIVE ANALYSIS OF UP TO 11 HLA LOCI

## GENE COVERAGE

### WHOLE GENE CHARACTERIZATION



### KEY REGION CHARACTERIZATION



## NGS WORKFLOW

### HOLOTYPE HLA™ SAMPLE PREPARATION

- Less than 0.8µg of DNA required for 11 locus amplification
- Compatible with multiple DNA sources: whole blood, cord blood, buccal swabs & saliva
- 5, 7 or 11 locus amplifications
- Scalable up to 96 samples / 11 loci, 192 / 7 loci and 288 / 5 loci\*\*\*

### ILLUMINA SEQUENCING

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

### HOLOTYPE HLA™ LIBRARY PREPARATION

- 4 hours hands-on time for 24 samples
- < 48 hours turnaround time from sample to result
- Library Size Selection: Pippin Prep or Magnetic Beads
- Holotype HLA libraries can be combined with other libraries

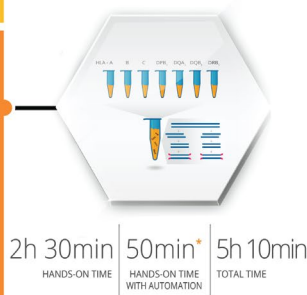
### HLA TWIN™ DATA ANALYSIS

- Fully automated analysis after Illumina sequencing run
- Two independent genotyping algorithms
- 24 Quality Control Metrics for confident assignment
- Balanced coverage between alleles at a locus, between loci in a sample and among samples
- Deep and even coverage across the whole targeted region

DAY 1

DAY 2

DAY 3



All timings are for 24 samples, Holotype HLA V3.0

\* Timings are based on the liquid handler used









\*\* On a MiSeq 300-cycle Micro flow cell

\*\*\* On a 300-cycle Standard flow cell with cluster density - 1,000K/mm<sup>2</sup>

# HIGHLIGHTS

Simple workflow and technician-friendly protocol  
Fully phased whole gene consensus sequences  
Multiple safe stopping points  
Pre-plated indexed adapters  
Kit splitting and flexibility  
Elimination of error-prone pipetting steps

## VALUE ADDED

-  Pre-sales presentation & NGS cost analysis
-  Site preparation
-  Onsite training
-  Validation / Accreditation assistance
-  Ongoing support in clinical production
-  24/7 remote support
-  Center of Excellence program
-  Omixon Academy

## PRODUCT CONFIGURATIONS

KITS*	SAMPLES PER KIT	LOCI	INDEXES	SAMPLES PER RUN*
5 LOCI	96	ABC, DRB1, DQB1	4 x 24 sets, 3 x 96 sets	288
7 LOCI	24 & 96	5+ DPB1, DQA1	4 x 24 sets, 3 x 96 sets	192
11 LOCI	24 & 96	7+ DRB3/4/5, DPA1	4 x 24 sets, 3 x 96 sets	96
CUSTOM LOCI	24 & 96	variable	4 x 24 sets, 3 x 96 sets	variable

\* All kits are manufactured under ISO-13485

\*\* On a MiSeq 300-cycle Standard flow cell with cluster density ~1,000K/mm<sup>2</sup>

## HLA LABS 50+ CLINICAL ROUTINE, 20+ DISTRIBUTORS, 20+ USING CE-IVD, WORLD WIDE COVERAGE



### Omixon

Phoenix, Houston, Baltimore, Boston, Barcelona, Prague, Budapest, Maastricht



### Distributors

(45+ Territories, 20+ Distributors)

Albania, Algeria, Armenia, Australia, Belarus, Bosnia, Bulgaria, Brazil, China, Czech Republic, Egypt, Estonia, France, Georgia, Greece, Hong-Kong, India, Iraq, Israel, Italy, Japan, Kazakhstan, Kuwait, Kyrgyzstan, Latvia, Lebanon, Lithuania, Macedonia, Malaysia, Morocco, Oman, Portugal, Qatar, Romania, Russia, Saudi-Arabia, Serbia, Singapore, South-Korea, Spain, Sub-Sahara & Africa, Taiwan, Thailand, Tunisia, Turkey, U.A.E., Uzbekistan, Vietnam



All Omixon activities covered by an ISO 13485:2016 & EN ISO 13485:2016 Quality Management System (QMS)