



OmniType

NGS Assay and Software



FAST

An NGS protocol for HLA typing that enables you to reduce your processing turnaround and hands-on time significantly as well as increase your throughput in a single working day.



EASY AND SAFE

OmniType's workflow is streamlined and easy to follow. Although automation is not necessary, the simplicity of the protocol is compatible with any liquid handling system. Just as importantly, all 11 HLA loci are amplified in a single reaction and all library preparation reagents come pre-mixed and pre-aliquoted in color coded strip tubes, that not only minimize the pipetting, but also minimize the risk for user errors.



CONFIDENCE

Data is automatically analyzed upon sequencing run completion. Results in HLA Twin require minimal user review. The optimized quality controls and numerous useful features of the software offer confidence in reporting unambiguous patient results.

MULTIPLEXING FOR HLA EXPERTS

OmniType is the next evolution in HLA genotyping by NGS. It is a Research Use Only **Multiplex** assay and software product for use on the Illumina® iSeq, MiniSeq, MiSeq and NextSeq. OmniType offers a revolutionary single working-day workflow that allows processing of samples from DNA to library in about 6 hours, loading the Illumina sequencer before the end of day 1 to get results the next day.

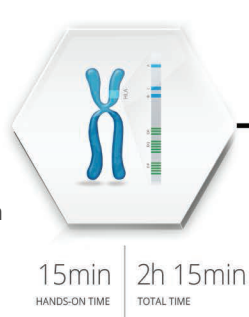
HLA Twin, the software that has been used in HLA laboratories for years, has been further optimized to provide high quality, unambiguous results that require very minimal user review. With multiple export options, including LIMS integrations, data reporting is efficient and accurate.

PRODUCT HIGHLIGHTS

- ✓ DNA to library in ~ 6 hours
- ✓ About 90 minutes hands-on time
- ✓ Simple workflow and technician-friendly protocol
- ✓ Automatable protocol for pre/post PCR
- ✓ Comprehensive genomic coverage
- ✓ No clinically relevant ambiguities
- ✓ Two orthogonal / independent algorithms
- ✓ Fully phased whole gene consensus sequences

OMNITYPE SAMPLE PREPARATION

- Multiplex: 1 tube / sample for 11 loci
- 200ng of DNA per sample required for 11 locus amplification
- Fast PCR: 2-hour amplification
- 1 PCR machine required for up to 96 samples / 11 loci



ILLUMINA SEQUENCING

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



DAY 1

OMNITYPE LIBRARY PREPARATION

- No amplicon pooling
- 3 hours Total Time
- About 1 hour hands-on time
- Balanced coverage between alleles across the locus, among all loci in a sample and among all samples
- Pre-aliquoted and color-coded reagents
- Pre-plated unique indexes

1h
HANDS-ON TIME

3h
TOTAL TIME

DAY 2

HLA TWIN DATA ANALYSIS CONFIDENCE, QUALITY, SPEED

- Two independent genotyping algorithms
- 24 Quality Control Metrics for confident assignment
- Automated genotyping after Illumina sequencing run
- Seamless user review workflow
- Integrated with all major LIMS platforms, multiple export file formats
- Supports parallelized analysis to further decrease analysis time^{**}
- Support for macOS, Windows and Linux

0h
HANDS-ON TIME

4h^{**}
TOTAL TIME

PRODUCT CONFIGURATIONS

KITS	SAMPLES PER KIT	LOCI	AVAILABILITY
11-LOCUS	24 & 96	7+ DRB3/4/5 DPA1	Q3 2020
7-LOCUS	24 & 96	5+ DPB1, DQA1	Q4 2021
5-LOCUS	96	ABC, DRB1, DQB1	Q4 2021

^{*}On a MiSeq 300-cycle Micro flow cell

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



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

RESEARCH USE ONLY