Omixon HLA Twin™

Resolving Complex Cases of NGS-based HLA Typing with HLA Twin

May 2016

Efi Melista - Head of Field and Lab Operations
Agenda

- Holotype HLA Overview (3 mins)
- HLA Twin v1.1.3 (2 mins)
- Hands on workflows in HLA Twin (55 mins)
- Questions - just put your hand up – we’ll be right over!
Introduction to Holotype HLA™

Holotype HLA is a combination Assay and Software product for the comprehensive gene amplification of multiple HLA loci, and sequencing on the Illumina MiSeq.
# Omixon Holotype HLA

<table>
<thead>
<tr>
<th>Kits</th>
<th>5-locus</th>
<th>7-locus</th>
<th>11-locus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kit sizes</td>
<td>96</td>
<td>24 and 96</td>
<td>24 and 96</td>
</tr>
<tr>
<td>Loci</td>
<td>ABC, DQB1, DRB1</td>
<td>5+ DPB1, DQA1</td>
<td>7+ DRB3/4/5 DPA1</td>
</tr>
<tr>
<td>Indexes</td>
<td>3x index sets</td>
<td>2x 24 index sets</td>
<td>2x 24 index sets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2x 96 index sets</td>
<td>2x 96 index sets</td>
</tr>
<tr>
<td>Samples per run*</td>
<td>32-240</td>
<td>4-192</td>
<td>4-96</td>
</tr>
<tr>
<td>CE-IVD</td>
<td>N/A</td>
<td>Q1, 2016</td>
<td>Q4, 2016</td>
</tr>
</tbody>
</table>

- Fully pooled (per-sample indexing)
- MiniSeq, MiSeq and NextSeq supported
- Nano, Micro & Full Flow Cells supported
- 300-cycle and 500-cycle chemistry supported
- 2 genotyping algorithms

*On a MiSeq with 250x250 chemistry and a full flow cell
New Features - HLA Twin v1.1.3

- Automated recognition of Miseq chemistry used
- Improved novel allele detection
- New QC metrics for more robust contamination detection
- Genotype editor
Hands-on Workflows in Twin

- Hands on workflows in HLA Twin (55 mins)
  - High Quality Sample
  - Novel Allele
  - Null Allele
  - Cis/Trans Ambiguity
  - Unusual Sample
  - Samples with Technical Errors
  - Rare Allele