

## IMGT/HLA 3.26.0 Reference File Release Notes

# For use with TruSight HLA Assign<sup>TM</sup> Analysis Software

January 2017

For Research Use Only. Not for use in diagnostic procedures.

Template No: 15048849 Rev A



#### **IMGT/HLA 3.26.0 REFERENCE UPDATE**

All alleles were validated for consistency with the IMGT/HLA release database version included in the IMGT/HLA release notes, which can be found with this link <a href="https://www.ebi.ac.uk/ipd/imgt/hla/docs/release.html">www.ebi.ac.uk/ipd/imgt/hla/docs/release.html</a> except for the following alleles:

- DRB4\*01:03:01:02N—Modified to be consistent with the scientific literature<sup>1</sup>
- DRB4\*03:01N—Removed due to lack of exon 2 reference sequence in the IMGT/HLA database
- o DRB1\*14:152N—Modified to include intron sequence.

#### REGIONS INCLUDED IN THE CORE EXON ANALYSIS

• Core regions are determined to have the highest impact on biological function.

| Locus            | Region                            |
|------------------|-----------------------------------|
| A                | Exon 2, 3, 4                      |
|                  | 5'UTR, position 200               |
|                  | Intron 1, position 478            |
|                  | Intron 2, positions 774-778, 1008 |
|                  | Intron 4, position 2167           |
| В                | Exon 1, 2, 3, 4, 5                |
|                  | 5'UTR, position 133               |
|                  | Intron 1, position 461            |
|                  | Intron 4, position 2232           |
| С                | Exon 1, 2, 3, 4, 7                |
| DPA1             | Exon 2, 3                         |
| DPB1             | Exon 2, 3                         |
| DQA1             | Exon 2, 3                         |
| DQB1             | Exon 2, 3                         |
| DRB1, DRB3, DRB5 | Exon 2, 3                         |
| DRB4             | Exon 2, 3                         |
|                  | Intron 1, position 9977           |

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<sup>&</sup>lt;sup>1</sup> Immunogenetics 31: 112-117, 1990



#### BASE POSITIONS MASKED FOR VARIANT CALLING

| Locus   | Region   |
|---------|--|
| Α       | None   |
| В       | None   |
| С       | Intron 6, position 2957  |
| DPA1    | None   |
| DPB1    | Intron 2, positions 9094-9150, 9154-9156, 9175-9240  |
| DQA1    | 5'UTR position 378-422<br>Intron 1 position 2010-2213, 3943-3946, 4199-4207<br>Intron 3 position 5722-5729<br>3'UTR position 6504-6510 |
| DQB1    | 5'UTR position 254-258, 350-352<br>Intron 1 position 852-888<br>Intron 2 position 3190-3227, 3801-3852, 5020-5022                      |
| DQB1G06 | Intron 1 position 867-871<br>Intron 2 position 4589-4591, 4489-4491, 4629-4631<br>Exon 3 position 5020-5022                            |
| DRB1G01 | Intron 2 position 6333-6409  |
| DRB1G03 | Intron 1 position 8231-8252<br>Intron 2 position 9063-9128   |
| DRB1G04 | Intron 2 position 9290-9349  |
| DRB1G07 | Intron 2 position 11341-11388  |
| DRB3    | Intron 2 position 8451-8531  |
| DRB4    | None   |
| DRB5    | Intron 2 position 8710-8758  |

### 3.26.0 CWD LIST UPDATE

All alleles in the CWD list supplied by the Immunogenetics Data Analysis Working Group, which have identical entries in the relevant IMGT database release, are included in the TruSight HLA Assign CWD list. In addition, when CWD alleles have been split into subgroups after the most recent CWD list, all alleles in the subgroups are included in the TruSight HLA Assign CWD list.

#### REFERENCE COMPATIBILITY

The IMGT HLA Reference 3.26.0 is compatible and validated with TruSight HLA Assign v2.0 and TruSight HLA Assign v2.1.



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#### REFERENCE UPDATE INSTRUCTIONS



In a default installation, the reference library files and the CWD, P, and G group files are installed.

- 1. In the System group, select **Update**.
- 2. In the Update window, under Import, select References.
- 3. Browse to the IMGT HLA Reference folder from Illumina. In the bottom right of the dialogue window, 'Reference Files' is indicated. Select all the files in the folder and select **Open**.
  - The dialogue window indicates files successfully copied.
- 4. In the System group, select **Update**.
- 5. In the Update window, under Import, select References.
- 6. Browse to the IMGT HLA Reference folder from Illumina. In the bottom right of the dialogue window, select **P&G Group File**. Select all the files in the folder and select **Open**.
  - The dialogue window indicates files successfully copied.
- 7. In the System group, select **Update**.
- 8. In the Update window, under Import, select **CWD Update**.
- 9. Browse to the IMGT HLA Reference folder from Illumina. In the bottom right of the dialogue window, 'CWD File' is indicated. Select all the files in the folder and select **Open**.

The dialogue window indicates files successfully copied.

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