

consensus HLA Report

Patient COLO829

13 July, 2022

This HLA report was generated using the consHLA toolkit on 13 July, 2022.

Summary of Clinically Relevant HLA Consensus Alleles

Class-I

HLA-A	HLA-B	HLA-C
01:01	08:01	07:01
01:01	40:02	03:04

Class-II

HLA-DRA	HLA-DRB1	HLA-DRB3	HLA-DRB4	HLA-DRB5
01:02	03:01	01:01	Not typed	Not typed
01:01	11:01	02:02	Not typed	Not typed

HLA-DQA1	HLA-DQB1	HLA-DPA1	HLA-DPB1
05:05	03:01	01:03	02:01
05:01	02:01	02:01	01:01

Consensus Alleles

HLA Gene	Allele 1	Allele 2
HLA-A	01:01:01	01:01:01
HLA-B	08:01:04	40:02:01
HLA-C	07:01:01	03:04:01
HLA-DRA	01:02:02	01:01:01
HLA-DRB1	03:01:01	11:01:01
HLA-DRB3	01:01:02	02:02:01
HLA-DRB4	Not typed	Not typed
HLA-DRB5	Not typed	Not typed
HLA-DQA1	05:05:01	05:01:01
HLA-DQB1	03:01:01	02:01:01
HLA-DPA1	01:03:01	02:01:02
HLA-DPB1	02:01:02	01:01:01
HLA-DMA	01:01:01	01:01:01
HLA-DMB	01:01:01	01:01:01
HLA-DOA	01:01:02	01:01:02
HLA-DOB	01:01:03	01:01:03
HLA-DRB2	01:01	01:01
HLA-DRB6	Not typed	Not typed
HLA-DRB7	Not typed	Not typed
HLA-DRB8	Not typed	Not typed
HLA-DRB9	Not typed	Not typed
HLA-E	01:01:01	01:01:01
HLA-F	01:01:03	01:01:03
HLA-G	01:01:02	01:01:02
HLA-H	02:01:01	02:01:01
HLA-J	01:01:01	01:01:01
HLA-K	01:01:01	01:01:01
HLA-L	01:01:02	01:01:02
HLA-V	01:01:01	01:01:01

Appendix

HLA Typing Method

The consensus HLA typing module uses HLA-HD (v1.4.0) to conduct HLA typing from Tumour and Germline WGS and Tumour RNAseq (optional) for a given patient, producing two or three sets of candidate alleles. For each typed HLA gene, a pair of consensus alleles is calculated based on concordance between the candidate allele sets.

The first page of the HLA report displays a ‘clinically significant’ subset of HLA alleles in a format which mimics that of a clinical HLA report and is therefore familiar to clinicians. The ‘clinically significant’ HLA subset includes most of the protein coding Class I and II HLA genes which are implicated in peptide presentation to T cells while excluding HLA Class I pseudogenes (HLA-H, -J, -K, -L, -V), non-classical Class I genes (HLA-E, -F, -G), Class II pseudogenes (HLA-DRB2, -DRB6, -DRB7, -DRB8, and -DRB9), and the non-classical Class II genes (HLA-DOA, -DOB, -DMA and -DMB). The second page of the report displays a table of all HLA alleles typed by the consHLA module (using HLA-HD), including the clinically relevant subset which is highlighted in bold text.