

April 13, 2026

Laboratory 06

Upload HLA Genotype Data

CSV

19th IHIWS database system development team

HLA Genotype Data Format (CSV)

In addition to HML format, our database system also accepts HLA genotype data in CSV (Comma-Separated Values) format.

This is a simpler alternative for laboratories that do not generate HML files. The CSV file is automatically converted to HML format upon upload.

CSV File Format – Required Columns

Column	Description	Required	Example
identifier	Sample identifier	Yes	DONOR001
typing_date	Date of typing (YYYY-MM-DD)	Yes*	2023-01-15
imgthla_db_version	IMGT/HLA DB version	Yes*	3.51.0
typing_method	NGS, SSO, or RT-PCR	Yes	NGS

* typing_date defaults to 2008-08-08 if not provided

* imgthla_db_version defaults to 3.63.0 if not provided

Column	Locus
hla_a	HLA-A
hla_b	HLA-B
hla_c	HLA-C
hla_dpa1	HLA-DPA1
hla_dpb1	HLA-DPB1
hla_dqa1	HLA-DQA1
hla_dqb1	HLA-DQB1
hla_drb1	HLA-DRB1
hla_drb3	HLA-DRB3
hla_drb4	HLA-DRB4

Allele format (GLString): HLA-A*01:01+HLA-A*02:01

Leave empty if not typed. At least one locus per sample required.

CSV File Example

```
identifier,typing_date,imgthla_db_version,typing_method,hla_a,hla_b,hla_c,hla_dpa1,hla_dpb1,hla_dqa1,hla_dqb1,hla_drb1,hla_drb3,hla_drb4,hla_drb5  
DONOR001,2023-01-15,3.51.0,NGS,HLA-A*01:01+HLA-A*02:01,HLA-B*07:02+HLA-B*08:01,HLA-C*07:01+HLA-C*07:02,,,,,HLA-DQB1*02:01+HLA-DQB1*03:01,HLA-DRB1*03:01+HLA-DRB1*04:01,,,  
DONOR002,2023-02-20,3.51.0,SSO,HLA-A*03:01+HLA-A*24:02,HLA-B*15:01+HLA-B*44:02,HLA-C*03:03+HLA-C*05:01,,,,,HLA-DQB1*05:01+HLA-DQB1*06:02,HLA-DRB1*01:01+HLA-DRB1*15:01,,,
```

Note: Each row is one line in the actual CSV file (shown wrapped here for readability)

Typing Method Values

CSV Value	Description
NGS	Next Generation Sequencing
SSO	Sequence-Specific Oligonucleotide
RT-PCR	Real-Time PCR / Sequence-Specific Primers

The `typing_method` column is case-insensitive (NGS, ngs, Ngs are all valid).

Upload CSV – Go to Lab View

<https://data.ihw19.org>

IHW19

[User Guide](#)

Dashboard

[Lab View](#)

[Project View](#)

 Demo User ▾

Dashboard

Click "Lab View"

Welcome to IHW19 Management System, Demo User

Metadata Completion Status

HLA Metadata

Sample Metadata (Stage 1)

Sample: 0 of 0 completed (0%)

Subject Metadata (Stage 2)

Subject: 0 of 0 completed (0%)

No HLA metadata found

Antibody Metadata

Sample Metadata (Stage 1)

Sample: 0 of 0 completed (0%)

Subject Metadata (Stage 2)

Subject: 0 of 0 completed (0%)

No Antibody metadata found

Lab View

Manage lab members, upload files, and configure sharing settings with projects.

[Go to Lab View](#)

Project View

Manage projects, view shared files, and import/export data.

[Go to Project View](#)

Upload CSV – Select HLA Genotype Data

<https://data.ihiw19.org/lab>

Lab View

Lab: CSVLAB01

Click "Genotype Data"

- Lab Members**
- Project Linkage
- Genotype Data**
- Antibody Testing Data
- Sample Metadata
- Subject Metadata
- Data Visibility
- Token Management

Lab Members Add Lab Member

Name	Email	Role	Status	Action
Demo User	csvdemo@example.com	PI	Active	

Upload CSV – Click Import Genotype Data

<https://data.ihw19.org/lab/#hla-genotype-data>

Lab View

Lab: CSVLAB01

- Lab Members
- Project Linkage
- Genotype Data**
- Antibody Testing Data
- Sample Metadata
- Subject Metadata
- Data Visibility
- Token Management

Genotype Data Management Import Genotype Data Delete Selected

Search Sample ID Items per page

10 ▾

<input type="checkbox"/>	Sample ID	Locus	GL String	Import date	Actions
No HLA Genotype data found					

Click "Import Genotype Data"

Upload CSV – Select CSV File

<https://data.ihw19.org/lab/#hla-genotype-data>

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User Guide Dashboard Lab View Project View

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Lab View

Lab: CSVLAB01

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Project Linkage

Genotype Data

Antibody Testing

Sample Metadata

Subject Metadata

Data Visibility

Token Management

Import Genotype Data

Click "Choose File" and select your .csv file

HML File

Choose File No file chosen

Upload an HML file (.xml or .hml)

Typing Method Information

Test Type *

HLA Vendor *

Instrument *

Software *

Software version *

Additional Information

e.g. 1.0

Optional

Cancel

Upload & Process

Delete Selected

Actions

Upload CSV – Fill Typing Method Method & Upload

<https://data.ihiw19.org/lab/#hla-genotype-data>

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Lab: CSVLAB01

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Antibody Testing

Sample Metadata

Subject Metadata

Data Visibility

Token Management

Import Genotype Data

HML File

Choose File hla_genotype_example.csv

Upload an HML file (.xml or .hml)

Typing Method Information

Test Type *

HLA typing

HLA Vendor *

Other

Instrument *

Other

Software *

Other

Software version *

1.0

Additional Information

Optional

Cancel

Upload & Process

Fill in Typing Method fields, then click "Upload & Process"

Upload Complete – CSV Imported Successfully

<https://data.ihw19.org/lab/#hla-genotype-data>

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Lab View

Lab: CSVLAB01

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Subject Metadata

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Token Management

Import Genotype Data

HML file imported successfully.
3 samples processed (3 new, 0 overwritten)

CSV data was converted to HML and imported successfully

Close

Search Sample ID

Enter Sample ID

Items per page

10

<input type="checkbox"/>	Sample ID	Locus	GL String	Import date	Actions
<input type="checkbox"/>	DONOR001	HLA-A	HLA-A*01:01 Show more	2026-04-13	View Delete
<input type="checkbox"/>	DONOR001	HLA-B	HLA-B*07:02 Show more	2026-04-13	View Delete
<input type="checkbox"/>	DONOR001	HLA-C	HLA-C*07:01 Show more	2026-04-13	View Delete
<input type="checkbox"/>	DONOR001	HLA-DQB1	HLA-DQB1*02:01 Show more	2026-04-13	View Delete
<input type="checkbox"/>	DONOR001	HLA-DRB1	HLA-DRB1*03:01 Show more	2026-04-13	View Delete
<input type="checkbox"/>	DONOR002	HLA-A	HLA-A*03:01 Show more	2026-04-13	View Delete
<input type="checkbox"/>	DONOR002	HLA-B	HLA-B*15:01 Show more	2026-04-13	View Delete

Imported Data – HLA Genotype Data View

<https://data.ihw19.org/lab/#hla-genotype-data>

Lab View

Lab: CSVLAB01

- Lab Members
- Project Linkage
- Genotype Data**
- Antibody Testing Data
- Sample Metadata
- Subject Metadata
- Data Visibility
- Token Management

Genotype Data Management

Import Genotype Data

Delete Selected

Search Sample ID

Items per page

Enter Sample ID

10 ▾

<input type="checkbox"/>	Sample ID	Locus	GL String	Import date	Actions
<input type="checkbox"/>	DONOR001	HLA-A	HLA-A*01:01 Show more ▾	2026-04-13	
<input type="checkbox"/>	DONOR001	HLA-B	HLA-B*07:02 Show more ▾	2026-04-13	
<input type="checkbox"/>	DONOR001	HLA-C	HLA-C*07:01 Show more ▾	2026-04-13	
<input type="checkbox"/>	DONOR001	HLA-DRB1	HLA-DRB1*03:01 Show more ▾	2026-04-13	
<input type="checkbox"/>	DONOR002	HLA-A	HLA-A*03:01 Show more ▾	2026-04-13	
<input type="checkbox"/>	DONOR002	HLA-B	HLA-B*15:01 Show more ▾	2026-04-13	

The imported genotype data is now visible in the table

Common Validation Errors

Error	Cause	Solution
Missing columns	Required column not found	Check column header names match exactly
Invalid typing_method	Value not NGS/SSO/RT-PCR	Use one of: NGS, SSO, RT-PCR
Missing typing_method	Empty typing_method cell	Every row must have a typing_method