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TITLE:

Immunopeptidomics: Isolation of Mouse and Human MHC class I- and II-Associated Peptides for Mass Spectrometry Analysis

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SUMMARY

Here, we present a protocol for the purification of MHC class I and class II peptide complexes from mouse and human cell lines providing high-quality immunopeptidomics data. The protocol focuses on sample preparation using commercially available antibodies.

ABSTRACT

Immunopeptidomics is an emerging field that fuels and guides the development of vaccines and immunotherapies. More specifically, it refers to the science of investigating the composition of peptides presented by major histocompatibility complex (MHC) class I and class II molecules using mass spectrometry (MS) technology platforms. Among all the steps in an MS-based immunopeptidomics workflow, sample preparation is critically important for capturing high-quality data of therapeutic relevance. Here, step-by-step instructions are described to isolate MHC class I and II-associated peptides by immunoaffinity purification from quality control samples, from mouse (EL4 and A20), and human (JY) cell lines more specifically. The various reagents and specific antibodies are thoroughly described to isolate MHC-associated peptides from these cell lines, including the steps to verify the beads-binding efficiency of the antibody and the elution efficiency of the MHC-peptide complexes from the beads. The protocol can be used to establish and standardize an immunopeptidomics workflow, as well as to benchmark new protocols. Moreover, the protocol represents a great starting point for any non-experts in

addition to foster the intra- and inter-laboratory reproducibility of the sample preparation procedure in immunopeptidomics.

INTRODUCTION

Over the last decade, the interest in investigating the repertoire of MHC-associated peptides has exceeded the academic sector and reached the biotech and pharmaceutical industries. Indeed, in cancer, the discovery of actionable tumor-specific neoantigens represents a major research focus in the industrial sector to develop clinical immunotherapies leading to personalized oncology¹⁻³. Fundamentally, MHC-associated peptides are presented throughout the entire body, reflect the intracellular stage of the cell, and are significant in various disease conditions such as autoimmunity, transplantation, infectious diseases, inflammation, cancer, and allergies^{1,4}. Thus, MHC-associated peptides, or human leukocyte antigen (HLA) ligands in humans, are of great medical interest and are collectively referred to as the immunopeptidome⁵.

MS is a powerful analytical approach to characterize the immunopeptidome^{6,7}, including the discovery of tumor-specific neoantigens⁸⁻¹¹. A typical workflow to perform an immunopeptidomics experiment includes three main steps: 1) sample preparation for the isolation of MHC-associated peptides, 2) data acquisition by MS, and 3) data analysis using various computational software tools¹². The generation of high-quality samples described in this visualized protocol is critical for the success of any project in MS-based immunopeptidomics. The protocol described below focuses on isolating MHC class I- and II-associated peptides from well-established cell lines that are suitable for generating high-quality immunopeptidomics data. Representative results from those cell lines are shown in the current protocol.

PROTOCOL

The protocol provided here was adapted from established protocols¹³⁻²⁰. The overall procedure for the immunoaffinity purification (IP) of MHC class I and II peptides is illustrated in **Figure 1**. See **Table of Materials** for details about the cell lines and antibodies used.

1. Beads coupling with the antibodies (Day 1): Coupling antibodies to sepharose CNBr-activated beads

NOTE: Prepare fresh solutions for each new experiment. Refer to **Table of Materials** and **Supplementary Table 1** for the list of reagents and solutions recipes. All the steps are carried out at room temperature (RT). When using a new antibody, check the binding efficiency by collecting key aliquots (see the indication OPTIONAL) and performing Coomassie blue staining SDS-PAGE (**Figure 2**).

1.1. Activation of the sepharose CNBr beads

1.1.1. Weigh 80 mg of sepharose CNBr-activated beads per sample and transfer them to a 15 mL conical tube.

1.1.2. To facilitate resuspension of dried beads, first, add 5 mL of 1 mM HCl and pipette up and down 5 times. Then, fill the conical tube with an additional 8.5 mL of 1 mM HCl.

1.1.3. Rotate at 20 rpm (revolutions per minute) for 30 min at RT using a rotator device. Centrifuge the beads at 200 x *g* for 2 min at RT and remove the supernatant by aspiration.

1.1.4. Add 500 µL of coupling buffer to the beads pellet and transfer to a new 2.0 mL centrifuge tube and keep aside for step 1.2.2.

1.2. Coupling of antibodies to CNBr-activated beads

1.2.1. Prepare the antibody selected for the isolation of the MHC class I or II peptides in a new 2.0 mL microcentrifuge tube by adding 2 mg of the antibody (according to the concentration specified by the manufacturer). Complete the volume to 1 mL with the coupling buffer solution to get a final concentration of 2 mg/mL.

1.2.2. Centrifuge the beads from step 1.1.4 at 200 x *g* for 2 min at RT and then remove the supernatant by aspiration.

1.2.3. Add the antibody solution to the 2.0 mL microcentrifuge tube containing the activated beads.

1.2.4. (OPTIONAL) Take an aliquot of 18 µL (INPUT), add 6 µL of 4x SDS-PAGE buffer, and freeze immediately.

1.2.5. Rotate the microcentrifuge tube from step 1.2.3 at 20 rpm for 120 min using a rotator device. Centrifuge the beads at 200 x *g* for 2 min and then remove the supernatant.

1.2.6. (OPTIONAL) Take an aliquot of 18 µL of the supernatant (unbound antibody), add 6 µL of 4x SDS-PAGE buffer and freeze immediately.

1.3. Blocking and washing of antibody coupled-beads

1.3.1. Add 1 mL of 0.2 M glycine to the microcentrifuge tube containing the antibody-coupled beads from step 1.2.5. Rotate at 20 rpm for 60 min at RT using a rotator device.

1.3.2. Centrifuge the beads at 200 x *g* for 2 min, then remove the supernatant. Add 1 mL of PBS (Phosphate-buffered saline).

1.3.3. Centrifuge the beads at 200 x *g* for 2 min, then remove the supernatant.

1.3.4. (OPTIONAL) Take an aliquot of 18 µL of the supernatant (unbound antibody, last wash), add 6 µL of 4x SDS-PAGE buffer and freeze immediately.

1.3.5. Add 1 mL of PBS to the beads in step 1.3.3.

1.3.6. (OPTIONAL) Take an aliquot of 18 μ L of beads mixture (beads coupled with antibody), add 6 μ L of 4x SDS-PAGE buffer, and freeze immediately.

1.3.7. Keep at 4 °C until use the same day in step 2.5.

NOTE: Beads can be prepared the day before the immunocapture, but longer storage has not been tested.

2. Cell lysis and immunocapture with antibody coupled-beads (Day 1)

NOTE: The level of MHC molecules varies from one cell type to another, and the quantification of MHC/HLA molecules per cell is suggested²¹(Figure 4A). We recommend a minimum of 1×10^8 cells for each IP. This number of cells corresponds to 6–10 mg of protein from JY, EL4, and A20 cells solubilized with 0.5% Chaps buffer. To prepare cell pellets for IPs, cells should be harvested, centrifuged, and washed twice with 5 mL of PBS. Then, cell pellets can be stored in a 1.5 mL microcentrifuge tube or a 15 mL conical tube at -80 °C until the time of the IP. Note that IPs can be performed on fresh harvested or frozen cell pellets.

2.1. To isolate MHC class I or II peptides, thaw a frozen pellet of 1×10^8 cells by warming the bottom of the tube with the palm. Add 500 μ L of PBS to the pellet and pipette up and down until the suspension is homogenous.

NOTE: Depending on the cell type, the cell pellet volume can vary substantially. If 500 μ L of PBS is not enough to dissolve the cell pellet, use more PBS until the cells disaggregate easily while pipetting up and down.

2.2. Measure the total volume of the pellet resuspended in PBS and transfer into a new tube 2 mL microcentrifuge tube. Split into more tubes if needed.

2.3. Add a volume of cell lysis buffer (1% chaps buffer in PBS containing protease inhibitors, 1 pellet/10 mL of buffer) equivalent to the volume of cell pellet resuspended in PBS measured in the previous step. The final concentration of the lysis buffer is 0.5% Chaps.

2.4. Rotate at 10 rpm for 60 min at 4 °C using a rotator device. Centrifuge the cell lysate at $18,000 \times g$ for 20 min at 4 °C with full brake and transfer the supernatant (containing the MHC-peptides complexes) in a new 2.0 mL microcentrifuge tube.

2.5. Recover the antibody-coupled beads from step 1.3.7 by centrifugation at $200 \times g$ for 2 min and remove the supernatant.

2.6. Transfer the cell lysate supernatant in step 2.4 to the antibody-coupled beads and incubate with rotation (10 rpm) for 14–18 h (overnight) at 4 °C using a rotator device.

3. Elution of MHC peptides (Day 2)

NOTE: Polypropylene column allows elution of MHC-peptide complexes while retaining the beads into the column. In order to evaluate the proportion of MHC-peptides complexes bounded to the beads before and after acidic elution with 1% TFA (trifluoroacetic acid), it is possible to perform a western blot with aliquots taken at key steps during the protocol (see the indication OPTIONAL). Western blotting shown in **Figure 3** reveals the enrichment of MHC-peptide complexes following acidic elution with 1% TFA. The absence of signal in this fraction would indicate that the elution step was not successful. Note that the proportion of unbound MHC-peptides complexes to the beads can also be evaluated in parallel by western blotting using an aliquot described in step 3.1.6.

3.1. Elution of MHC-peptide complexes from the antibody coupled-beads

3.1.1. Remove the bottom lid of the polypropylene column, place the column onto the polypropylene column rack and install an empty container underneath to collect flow through.

NOTE: One column per sample is required.

3.1.2. Rinse the polypropylene column with 10 mL of buffer A and let it drain by gravity. If the flow speed of liquid elution is too slow, further cut the bottom tip of the polypropylene column.

3.1.3. Measure and collect the beads-lysate mixture (~2 mL) from step 2.5 and transfer it into the polypropylene column.

3.1.4. (OPTIONAL) Take an aliquot of 20 μ L (or 1/100 out of the total volume) for western blotting and freeze immediately. This fraction corresponds to the total MHC-peptides complexes incubated with the beads.

3.1.5. Let the liquid mixture elute by gravity.

3.1.6. (OPTIONAL) Collect and measure the flow-through and take an aliquot of 20 μ L (or 1/100 out of the total volume) for western blotting and freeze immediately. This fraction represents the residual unbound MHC-peptides complexes.

3.1.7. To recover the beads-lysate mixture as much as possible, rinse the tube from step 3.1.3 with 1 mL of buffer A and transfer it to the polypropylene column.

3.1.8. Wash the beads retained in the polypropylene column by adding 10 mL of buffer A. Let the washing buffer elute by gravity.

3.1.9. Repeat the washing step with 10 mL of buffer B, 10 mL of buffer A and then 10 mL of buffer C.

3.1.10. Remove the polypropylene column from the rack and place it on the top of a new 2.0 mL microcentrifuge tube. Hold the column and the tube together with the hand.

3.1.11. Add 300 μ L of 1% TFA to the polypropylene column and mix the beads by pipetting up and down 5 times.

NOTE: The beads will be retained in the polypropylene column, and the MHC-bound peptides will elute in the 2.0 mL microcentrifuge tube.

3.1.12. Transfer the eluate in a new 2.0 mL microcentrifuge tube. Repeat step 3.1.11 and pool the 2 eluates (the eluates containing the MHC-peptide complexes should correspond to a total of 600 μ L and will be used at step 3.2.4).

3.1.13. (OPTIONAL) Collect an aliquot of 6 μ L (or 1/100 of the total volume) for western blotting and freeze immediately. This fraction corresponds to the MHC-peptides complexes eluted from the beads.

3.2. Desalting and elution of MHC peptides

NOTE: Desalting and elution of MHC peptides steps could be done by installing the C18 column onto a 2.0 mL microcentrifuge tube. For a better fit, install the anneals provided by the manufacturer between the C18 column and the 2.0 mL microcentrifuge tube. In this protocol, a C18 column is used with a volume capacity of 5–200 μ L (6–60 μ g). All the steps are carried out at RT.

3.2.1. Add 200 μ L of Methanol on top of the C18 column, then centrifuge at 1546 x *g* for 3 min. Discard the flow-through.

3.2.2. Add 200 μ L of 80%ACN (acetonitrile)/0.1%TFA on top of the C18 column, then centrifuge at 1546 x *g* for 3 min. Discard the flow-through.

3.2.3. Add 200 μ L of 0.1%TFA on top of the C18 column, then centrifuge at 1546 x *g* for 3 min. Discard the flow-through.

3.2.4. Load 200 μ L of the MHC-peptide complexes from step 3.1.12 on top of the C18 column. Centrifuge at 1546 x *g* for 3 min and discard the flow through.

3.2.5. Repeat step 3.2.4 twice until the complete volume has been loaded. Note that MHC peptides are retained in the C18 column.

3.2.6. Add 200 μ L of 0.1%TFA to the C18 column, then centrifuge at 1546 x *g* for 3 min. Discard the flow-through.

3.2.7. Transfer the C18 column into a new 2.0 mL microcentrifuge tube. Elute MHC peptides from the C18 column by adding 150 μ L of 28%ACN/0.1%TFA.

3.2.8. Centrifuge at 1546 x *g* for 3 min.

3.2.9. Transfer the flow-through in a new 1.5 mL microcentrifuge tube. Be careful not to discard the flow-through; it contains the isolated MHC class I or II peptides.

3.2.10. Repeat steps 3.2.7–3.2.9 twice for a total volume of 450 μ L.

3.2.11. Freeze the 450 μ L of eluate (purified MHC class I or II peptides) at -20 °C until samples are analyzed by LC-MSMS.

3.2.12. Prior to LC-MS/MS analysis, the purified MHC class I or II peptides from step 3.2.11 are evaporated to dryness using a vacuum concentrator with presets of 45 °C for 2 h, vacuum level: 100 mTorr and vacuum ramp: 5.

NOTE: The evaporation of frozen samples is highly efficient. Dried peptides can be re-frozen until analysis.

4. Identification of MHC class I and II peptides by LC-MS/MS

NOTE: Analyze the MHC class I and II immunopeptidome using a High-performance Orbitrap and high-resolution quadrupole time-of-flight mass spectrometers⁶. The following information is given as an indication only, taking into account that the various existing tandem mass spectrometry instruments operate according to different operational standards. A brief outline of the steps are discussed below :

4.1. Solubilize the dried samples (from step 3.2.12) in 50 μ L of 4% formic acid (FA).

4.2. Load three injections of 16 μ L for each sample and separate on a home-made reversed-phase column (150- μ m i.d. by 250 mm length, Jupiter 3 μ m C18 300 Å) with a gradient from 5%–30% ACN-0.1% FA and a 600 nL/min flow rate on a nano-flow UHPLC connected to an MS.

4.3. Acquire each full MS spectrum at a resolution of 120000, an AGC of 4×10^5 with automatic mode for the injection time and spectra using tandem-MS (MS-MS) on the most abundant multiply charged precursor ions for a maximum of 3 s.

NOTE: Tandem-MS experiments are performed using higher-energy collisional dissociation (HCD) at a collision energy of 30%, a resolution of 30,000, an AGC of 1.5×10^5 , and an injection time of 300 ms.

4.4. Process the data files from the three injections/sample using a proteomics LC-MS/MS analysis software (e.g., PEAKS X) using the mouse and human databases (UniProtKB/Swiss-Prot (2019_09)).

4.5. Select 'Unspecified Enzyme Digestion' for the enzyme parameter, and 10 ppm and 0.01 Da for mass tolerances on precursor and fragment ions, respectively.

NOTE: Variable modifications are deamidation (NQ) and oxidation (M). All other search parameters are the default values. Final peptide lists are filtered using ALC of 80% and with a false discovery rate (FDR) of 1 % using the proteomics LC-MS/MS analysis software.

5. Visualization of immunopeptidomics data

NOTE: The quality of immunopeptidomics data generated by MS can be assessed in multiple ways, as recently described^{22,23}. To visualize the data and assess their overall quality, composition, and MHC-specificity, the MhcVizPipe (MVP) software tool can be used.

5.1. Follow all the instructions and related documentation to install and run the MVP software available at the Caron Lab GitHub website²⁴.

NOTE: MVP provides a rapid and consolidated view of sample quality, composition, and MHC-specificity. MVP parallelizes the use of well-established immunopeptidomics algorithms (NetMHCpan²⁵, NetMHCIIpan²⁶, and GibbsCluster²⁷) and generates organized and easy-to-understand reports in HTML (HyperText Markup Language) format. The reports are fully portable and can be viewed on any computer with a modern web browser. See **Supplementary Data 1–4** for examples of HTML reports.

REPRESENTATIVE RESULTS

The general workflow to isolate MHC-peptide complexes for the analysis of immunopeptidomes by MS is illustrated in **Figure 1**. Representative results for the verification of the beads-binding efficiency of the antibody (**Figure 2**) (using the Y3 anti-H2K^b antibody) and the elution efficiency of the MHC-peptide complexes from the beads (**Figure 3**) (using the W6/32 anti-HLA-ABC antibody) are shown. Flow cytometry-based quantification assays²¹ were also applied to measure the absolute number of MHC class I molecules per EL4 cell (H2K^b and H2D^b) and JY cell (HLA-ABC), as shown in **Figure 4A**.

The intra- and inter-individual reproducibility of the results using the current protocol are shown in **Figure 4B–E**. Representative results are shown for MHC class I peptides identified from 1×10^8 EL4 cells and 1×10^8 JY cells. Results were generated from two different lab members (User 1 and User 2). For User 1, the mean number of MHCI-specific peptides detected from EL4 and JY cells was 1341 and 6361, respectively; for User 2, 1933 and 7238, respectively (**Figure 4B,D**). The average coefficient of variation (CV) for the number of peptides detected across three different biological replicates/experiments varies from 1.9%–11% (**Figure 4B,D**). Although the CVs for the

number of peptides detected across the three different experiments were relatively small, the identity of the peptides varied considerably (**Figure 4C,E**). Indeed, representative Venn diagrams show that the proportion of peptides that were reproducibly detected across three biological replicates ranged from 39% (User 2, EL4 cells) to 63% (User 1, JY cells) (**Figure 4C,E and Supplementary Table 2**).

Heatmaps generated by the MVP software show predicted MHC binding strength of the identified peptides using the NetMHCpan suite tools^{25,26,28}. Two GibbsCluster routine options, which are termed ‘Unsupervised GibbsCluster’ and ‘Allele-Specific GibbsCluster’, are also performed by MVP to extract MHC peptide-binding motifs. Note that MVP has limitations; its primary goal is not to extract allele-specific motifs and annotate peptides in a highly accurate manner but to rather provide a bird’s eye view on the overall quality, composition, and MHC-specificity of the samples.

For mouse MHC class I (H2D^b and H2K^b) peptides in EL4 cells (**Figure 5A**; upper panels and **Supplementary Data 1**), a representative heatmap shows that 89% of all detected 8-12-mer peptides are predicted to be Strong Binders (SB: NetMHCpan %Rank <0.5) or Weak Binders (WB: NetMHCpan %Rank <2) for H2D^b or H2K^b molecules. Sequence clusters generated from the 8-12-mer peptides are in concordance with reported logos for H2D^b (asparagine at P5 and Leucine at P9) and H2K^b (phenylalanine at P5 and leucine at P8) (**Figure 5**)²⁹. It is worth mentioning that a third dominant motif (histidine at P7 and leucine at P9) as well as additional ‘artefactual’ motifs can be observed using the M1 antibody (**Supplementary Data 1**). In fact, the M1 antibody is known to cross-react with the non-classical Qa2 molecule, and therefore, Qa2-associated peptides are also detected by MS (**Supplementary Data 1**). Here, for simplicity, **Figure 5** focuses on showing the well-established peptide binding motifs for the two classical H2^b alleles (i.e., H2D^b or H2K^b) expressed in EL4 cells.

For human HLA class I (HLA-ABC) peptides in JY cells (**Figure 5A**; lower panels and **Supplementary Data 2**), a representative heatmap shows that 97% of all detected 8-12-mer peptides are predicted to be SB or WB for HLA-A*0201, -B*0702 or -C*0702. Peptides were clustered to visualize peptide binding motifs for HLA-A*0201 and -B*0702. Binding motif for HLA-C*0702 is not shown in **Figure 5A** because the C*0702 allele has a relatively low expression level. Therefore too few C*0702 peptides were isolated and identified to generate a representative C*0702 motif. Note that the C*0702 motif can be visualized in other studies^{30–32} or from the NetMHCpan 4.1 Motif Viewer website³³.

For human HLA class II (HLA-DR) peptides in JY cells (**Figure 5B**; upper panels and **Supplementary Data S3**), a representative heatmap shows that 70% of all detected 9-22-mer peptides are predicted to be SB or WB for HLA-DRB1*0404 and -DRB1*1301. Peptide binding motifs for these two alleles are shown (**Figure 5B**). Note that the peptide-binding motifs shown here may not be in complete concordance with the recently reported logos for HLA-DRB1*0404 and -DRB1*1301³⁴. This discrepancy highlights the current inability of MVP/NetMHCpan to precisely annotate peptides to HLA class II alleles that are less characterized, such as HLA-DRB1*0404 and

-DRB1*1301 expressed in JY cells. Additional information on class II peptide binding motifs can be found in other studies^{34,35} and from the NetMHCIIpan 4.0 Motif Viewer website³⁶.

Finally, for mouse MHC class II (H2-IA^d and H2-IE^d) peptides in A20 cells (**Figure 5B**; lower panels and **Supplementary Data 4**), a representative heatmap shows that 87% of all detected 9–22-mer peptides are predicted to be SB or WB for H2-IA^d or H2-IE^d. Peptide binding motifs for these two alleles are in concordance with reported logos³⁷.

Complete HTML reports generated by the MVP software to assess the overall quality and MHC-specificity of the samples are available in **Supplementary Data 1–4**.

FIGURE AND TABLE LEGENDS:

Figure 1: Schematic of the complete procedure for the isolation of MHC class I and II peptides. (A–B) 100 million cells are pelleted and lysed with 0.5% Chaps buffer. (C) The cell lysate is centrifuged, and the supernatant is added to CNBr-sepharose beads coupled to the desired antibody beforehand and (D) incubated 14–18 h at 4 °C. (E) Following immunocapture, the beads are transferred into a polypropylene column and washed, and the MHC-peptide complexes are eluted with a 1% TFA solution. (F) The peptides are desalted and eluted using a C18 column. (G) Subsequently, peptides are speed vac dried and analyzed by tandem mass spectrometry. (H) The quality of the isolated MHC class I and II peptides can be assessed based on the HLA subtypes using the freely available MhcVizPipe software. Figure created with BioRender.com (NT22ZL8QSL).

Figure 2: Coomassie gel staining to track antibody binding efficiency to sepharose CNBr-activated beads. Aliquots of equivalent volumes were loaded onto 12% SDS-PAGE gel followed by Coomassie blue staining: beads + antibody pre-coupling (1), unbound antibody following coupling step (2), supernatant following last wash after coupling (3), and beads coupled with antibody (4). The efficiency of binding is illustrated by a significant decrease in signal staining intensity of the light and heavy chains of H2K^b when beads are covalently bound (Lane 4) to the CNBr beads compared to the antibody before coupling (Lane 1). The figure has been reprinted and adapted from bioRxiv³⁸.

Figure 3: Western blotting for tracking MHC-peptide complexes following acidic elution from antibody-coupled CNBr-activated beads. Aliquots taken from the steps indicated in the protocol (1/100 of the total measured volume) were loaded onto a 12% SDS-PAGE gel and transferred onto nitrocellulose membrane: Beads + lysate following immunocapture and last wash (A); supernatant of last wash (B) and MHC-peptide complexes eluted from the beads (C). The strong detection signal of the MHC-peptide complexes in (C) using anti-HLA-ABC heavy chain antibody (Abcam, #ab 70328, 1:5000) confirmed the isolation of MHC-peptide complexes following acidic elution. Note that it is possible to assess the proportion of MHC-peptide complexes that were not captured by the antibody coupled beads by collecting the flow-through from step 3.1.6. An aliquot can be added to the western blot (not shown on this gel).

Figure 4: Identification of MHC class I peptides from JY and EL4 cells. (A) Histogram showing the absolute number of cell surface H2D^b and H2K^b molecules per EL4 cell and of HLA-ABC molecules per JY cell. Quantification was performed by flow cytometry. Mean and standard error of the mean were obtained from three biological replicates. (B, D) Histogram showing the mean number and standard deviation of the mean of MHC class I peptides identified by two independent users (USER_1 [U1] and USER_2 [U2]). Mean number and standard deviation of the mean of MHC class I peptides detected from mouse EL4 cells (B) and human JY cells (D) are shown. Coefficients of variation (CV) across three independent biological replicates are indicated. (C, E) Venn diagrams showing the number of peptides that were reproducibly detected in EL4 (C) and JY cells (E) by two independent users (U1 and U2) across three independent biological replicates. **Figure 4A** has been reprinted and adapted from bioRxiv³⁸.

Figure 5: Visualization of immunopeptidomics data using the MVP software tool. Data analysis of mouse and human (A) MHC class I and (B) MHC class II peptides. Representative binding affinity heatmaps (left panels) and peptide binding motifs (right panels) are shown. Heatmaps colors represent the MHC binding affinity predicted by NetMHCpan 4.1 (%rank). Strong Binders are red (%rank <0.5), Weak Binders are blue (%rank <2) and Non-Binders are yellow (%Rank >2). Proportion (%) of 8-12mer peptides (A) and 9-22mer peptides (B) that are SB or WB is indicated in parenthesis. Peptide binding motifs were generated by MVP using the 'Allele-specific Gibbscluster' option. These representative results were obtained from 1 x 10⁸ cells and by using the following antibodies and cell lines: M1 antibody and EL4 cells for mouse MHC class I peptides; W6/32 antibody and JY cells for human MHC class I peptides; M5 antibody and A20 cells for mouse MHC class II peptides; L243 antibody and JY cells for human MHC class II peptides. Refer to the **Supplementary Data 1–4** to access the full HTML reports generated by the MVP software.

Supplementary Data 1: HTML report generated by the MVP software from peptides that were isolated from 1 x 10⁸ EL4 cells using the M1 antibody. Three biological replicates are shown. This report is related to **Figure 4** and **Figure 5** and representative peptides are listed in **Supplementary Table 2**.

Supplementary Data 2: HTML report generated by the MVP software from peptides that were isolated from 1 x 10⁸ JY cells using the W6/32 antibody. Three biological replates are shown. This report is related to **Figure 4**, and **Figure 5**, and representative peptides are listed in **Supplementary Table 2**.

Supplementary Data 3: HTML report generated by the MVP software from peptides that were isolated from 1 x 10⁸ JY cells using the L243 antibody. This report is related to **Figure 5**, and representative peptides are listed in **Supplementary Table 2**.

Supplementary Data 4: HTML report generated by the MVP software from peptides that were isolated from 1 x 10⁸ A20 cells using the M5 antibody. This report is related to **Figure 5**, and representative peptides are listed in **Supplementary Table 2**.

Supplementary Table 1: List of buffers. Recipes for all the buffers used in the protocol are described.

Supplementary Table 2: Representative lists of peptides associated with H2D^b/K^b, HLA-ABC, HLA-DR, and H2-IA^d/IE^d. This table contains the lists of representative MHC class I and II peptides isolated from mouse EL4 and A20 cell lines, respectively, and HLA class I and II from human JY cell line. These data have been deposited on the ProteomeXchange (PXD028633).

DISCUSSION:

Two mouse cell lines (EL4 and A20), one human cell line (JY), and five commercially available antibodies [M1 (anti-H2D^b/K^b), Y3 (anti-H2K^b), M5 (anti-H2-IA^d/IE^d), W6/32 (anti-HLA-ABC), and L243 (anti-HLA-DR)] were tested and validated in the context of this protocol and provide high-quality immunopeptidomics data. Other anti-HLA antibodies are available (e.g., anti-HLA-A2 BB7.2) but were not tested here. Note that the W6/32 antibody is widely used and the most established antibody in the field; it enables the isolation of peptides presented by all HLA-ABC molecules in humans and was previously reported by expert laboratories to work from various biological sources such as fresh or frozen tissues^{8,39}, peripheral blood mononuclear cells and bone marrow mononuclear cell⁴⁰, biopsies⁴¹, xenografts^{41,42}, autopsies⁴³ and plasma samples^{44,45}.

The preparation of fresh solutions that are used throughout the protocol is critical. In particular, the use of fresh acidic solutions in glass bottles is critical to avoid subsequent contamination of the samples analyzed by MS. In addition, when the protocol is done for the first time and/or with a new antibody, it is important to assess that the antibody is indeed coupled to the CNBr Sepharose beads using a blue Coomassie gel. The washing steps of the antibody coupled beads following immunocapture of the MHC-peptide complexes is also critical to avoid contamination of non-MHC peptides. Finally, special care is required to not discard the eluates following the elution of the MHC-peptide complexes with 1% TFA and the elution of the peptides from the C18 column with ACN28%/0.1% FA.

Existing protocols available in the literature describe additional steps to further purify the peptides at the end of the isolation procedure, e.g., peptide fractionation by different methods^{14,46} or ultrafiltration using 10-30 kDa filters^{13,47}. The current protocol does not provide details on those additional steps and is sufficient to provide high-quality immunopeptidomics data. However, such steps could be considered by non-experts to modify and troubleshoot to further optimize the peptide isolation procedure.

The type of beads and the type of acidic elution buffer that are used to elute MHC-complexes from the beads can also be modified for troubleshooting¹³⁻¹⁹. In this regard, sepharose CNBr-activated beads are generally a good starting point since they are relatively inexpensive in addition to show flexibility in terms of binding with various types of antibodies. In the current protocol, sepharose CNBr-activated beads were shown to perform relatively well using five different commercially available antibodies (i.e., M1, Y3, W6/32, L243, and M5). Besides sepharose CNBr-activated beads, Protein A or G or A/G sepharose 4 Fast Flow beads are also easy to handle, and although relatively more expensive, can generate similar results. Another factor

to consider is the affinity of the antibody for protein A or G. Furthermore, sepharose magnetic beads are also very easy to use but are relatively expensive. Independently of the type of beads selected by non-experts, it is encouraged to collect aliquots at critical steps of the protocol and perform blue Coomassie-stained SDS-PAGE gels to track the binding efficiency of the antibody to the beads, as shown in **Figure 2**.

Another important factor influencing the successfulness of MHC peptides isolation refers to the type of acidic elution buffer used to isolate the MHC-peptide complexes from the beads. Different buffers have been reported including 0.1%, 1% or 10% TFA, 0.2% FA and 10% acetic acid. 1% TFA was the elution buffer working for all the antibodies tested. This step could also be traced by western blotting against the MHC molecules used to capture MHC peptides, as shown in **Figure 3**.

All buffers containing acetonitrile (ACN) and/or trifluoroacetic acid (TFA) are aggressive and can lead to contamination of the sample with small molecular and polymeric substances such as plasticizers if in contact with plastic. To avoid such issues, all solutions containing an organic solvent and/or TFA are prepared fresh daily and stored in a glass bottle until use. The majority of the steps are performed in Protein LoBind plastic tube. These tubes are specifically designed for proteomics and are made of the highest quality, virgin polypropylene free of biocides, plasticizers, and latex. They are also produced with optimized, highly polished molds without the use of slip agents. These precautions are important to consider to enable the generation of high-quality immunopeptidomics data.

The antibody is an important limitation for the isolation of MHC-bound peptides. The W6/32 antibody enables the isolation of peptides presented by all HLA-ABC class I molecules in humans and is the most widely used and established antibody in the field. High-resolution HLA typing of uncharacterized human cell lines or biospecimens is not a necessity upon application of the W6/32 antibody but is nevertheless recommended for certain applications to facilitate data interpretation⁴⁸. HLA/MHC typing information can also be found in public resources for multiple cell lines and mouse models⁴⁹. Besides the W6/32 antibody, the four other antibodies (M1, M5, Y3, and L243) that were tested and validated in the context of this protocol are all commercially available. On the other hand, many other antibodies that were reported in previous immunopeptidomics studies have not been largely adopted by the community and are not commercially available or are available through the culture of hybridoma cell lines, which is relatively expensive.

Another important limitation for the isolation of MHC-bound peptides is the amount of starting material required. The amount required is inversely proportional to the expression level of MHC molecules on the cell surface, which can be quantified by flow cytometry (**Figure 4A**). Cells showing high expression levels of MHC molecules (e.g., dendritic cells and hematopoietic cells in general) generally yield high-quality immunopeptidomics data. Expert labs use from as low as 50 million cells⁵⁰, but 100 million to 1 billion cells are recommended for non-experts. Use of tissue biopsy (<13 mg)⁴¹, xenograft^{42,43}, autopsy⁴⁴, and plasma^{45,46} samples were also reported but remain challenging for non-expert laboratories. Also, the total number of MHC-associated

peptides expected is well documented for established cell lines (here, between ~2000 and ~10000 peptides depending on the cell line and antibody used), but the absolute amounts of naturally presented peptides that are efficiently pulled down by the technique remain debated. Indeed, previous studies estimated that the efficiency of the isolation procedure is peptide-dependent and can be from as low as 0.5%–2%⁵¹. Other limitations in immunopeptidomics are the reproducibility of the methods and the inability of the NetMHCpan suite tools to correctly annotate peptides to MHC alleles that are less characterized. In this regard, further development and application of relatively new data-independent acquisition MS methods^{7,32,52}, as well as new peptide clustering and MHC peptide binding prediction algorithms^{31,34,53,54} are expected to improve the reproducibility and the accuracy of peptide annotation in immunopeptidomics. Immunopeptidomics is facing other limitations regarding MS acquisition and computational analysis of MHC-associated peptides and are covered elsewhere^{1,6,55}.

While the isolation of HLA-ABC-associated peptides from human samples using the W6/32 antibody is well established and widely applied by many research groups, the isolation of mouse MHC class I- and II-associated peptides is relatively less established. Hence, robust protocols for the isolation of mouse MHC ligands are needed. Here, we provide a protocol optimized for the isolation of MHC class I peptides and MHC class II peptides from two mouse cell lines of C57BL/6 and BALB/c origin, respectively. Specifically, the protocol enables the isolation of class I H2K^b- and H2D^b-associated peptides using the M1 antibody, as well as class II H2-IA^d and H2-IE^d-associated peptides using the M5 antibody. Thus, dissemination and application of the current protocol should facilitate basic and translational immunopeptidomics research in various mouse models.

The protocol can be used to establish and standardize an immunopeptidomics workflow, as well as to benchmark new protocols. For instance, it can be adapted and further optimized to perform immunopeptidomics screening in various biological matrices ranging from blood/plasma to fresh or frozen tissue to FFPE (Formalin-Fixed Paraffin-Embedded). Moreover, the protocol will foster the intra- and inter-laboratory reproducibility of the sample preparation procedure in immunopeptidomics and is therefore expected to find wide application in basic and clinical research.

ACKNOWLEDGMENTS:

We thank Pierre Thibault, Eric Bonneil, Joël Lanoix, Caroline Côté (Institute for Research in Immunology and Cancer, Université de Montréal) and Anthony Purcell (Monash University) for their insightful comments. This work was supported by funding from the Fonds de recherche du Québec – Santé (FRQS), the Cole Foundation, CHU Sainte-Justine, and the Charles-Bruneau Foundations, Canada Foundation for Innovation, the National Sciences and Engineering Research Council (NSERC) (#RGPIN-2020-05232) and the Canadian Institutes of Health Research (CIHR) (#174924).

DISCLOSURES:

The authors declare that they have no competing financial interests.

DATA AVAILABILITY:

Datasets used in this manuscript were deposited on the ProteomeXchange (<http://proteomecentral.proteomexchange.org/cgi/GetDataset>): PXD028633.

REFERENCES:

1. Vizcaíno, J. A. et al. The human immunopeptidome project: A roadmap to predict and treat immune diseases. *Molecular & Cellular Proteomics*. **19** (1), 31–49 (2019).
2. Caron, E., Aebersold, R., Banaei-Esfahani, A., Chong, C., Bassani-Sternberg, M. A case for a human immuno-peptidome project consortium. *Immunity*. **47** (2), 203–208 (2017).
3. Arnaud, M., Duchamp, M., Bobisse, S., Renaud, P., Coukos, G., Harari, A. Biotechnologies to tackle the challenge of neoantigen identification. *Current Opinion in Biotechnology*. **65**, 52–59 (2020).
4. Caron, E. et al. The MHC I immunopeptidome conveys to the cell surface an integrative view of cellular regulation. *Molecular Systems Biology*. **7** (1), 533–533 (2011).
5. Istrail, S. et al. Comparative immunopeptidomics of humans and their pathogens. *Proceedings of the National Academy of Sciences of the United States of America*. **101** (36), 13268–13272 (2004).
6. Caron, E., Kowalewski, D. J., Koh, C. C., Sturm, T., Schuster, H., Aebersold, R. Analysis of major histocompatibility complex (MHC) immunopeptidomes using mass spectrometry. *Molecular & Cellular Proteomics*. **14** (12), 3105–3117 (2015).
7. Caron, E. et al. An open-source computational and data resource to analyze digital maps of immunopeptidomes. *eLife*. **4**, e07661 (2015).
8. Bassani-Sternberg, M. et al. Direct identification of clinically relevant neoepitopes presented on native human melanoma tissue by mass spectrometry. *Nature Communications*. **7** (1), 13404 (2016).
9. Gubin, M. M. et al. Checkpoint blockade cancer immunotherapy targets tumour-specific mutant antigens. *Nature*. **515** (7528), 577 (2014).
10. Yadav, M. et al. Predicting immunogenic tumour mutations by combining mass spectrometry and exome sequencing. *Nature*. **515** (7528), 572–576 (2015).
11. Laumont, C. M. et al. Noncoding regions are the main source of targetable tumor-specific antigens. *Science Translational Medicine*. **10** (470), eaau5516 (2018).
12. Lill, J. R. et al. Minimal information about an immuno-peptidomics experiment (MIAIPE). *Proteomics*. **18** (12), e1800110 (2018).
13. Nelde, A., Kowalewski, D. J., Stevanović, S. Antigen processing, methods and protocols. *Methods in molecular biology (Clifton, N.J.)*. **1988**, 123–136 (2019).
14. Purcell, A. W., Ramarathnam, S. H., Ternette, N. Mass spectrometry-based identification of MHC-bound peptides for immunopeptidomics. *Nature Protocols*. **14** (6), 1687–1707 (2019).
15. Ebrahimi-Nik, H. et al. Mass spectrometry driven exploration reveals nuances of neoepitope-driven tumor rejection. *JCI Insight*. **5** (14), e129152 (2019).
16. Schuster, H. et al. A tissue-based draft map of the murine MHC class I immunopeptidome. *Scientific Data*. **5**, 180157 (2018).
17. Ritz, D., Gloger, A., Weide, B., Garbe, C., Neri, D., Fugmann, T. High-sensitivity HLA class I peptidome analysis enables a precise definition of peptide motifs and the identification of peptides from cell lines and patients' sera. *PROTEOMICS*. **16** (10), 1570–1580 (2016).

18. Bassani-Sternberg, M. Mass spectrometry based immunopeptidomics for the discovery of cancer neoantigens. **1719**, 209–221 (2018).
19. Lanoix, J. et al. Comparison of the MHC I Immunopeptidome Repertoire of B-Cell Lymphoblasts Using Two Isolation Methods. *Proteomics*. **18** (12), e1700251 (2018).
20. Kuznetsov, A., Voronina, A., Govorun, V., Arapidi, G. Critical review of existing MHC I immunopeptidome isolation methods. *Molecules*. **25** (22), 5409 (2020).
21. Urlaub, D., Watzl, C. Coated latex beads as artificial cells for quantitative investigations of receptor/ligand interactions. *Current Protocols in Immunology*. **131** (1), e111 (2020).
22. Ghosh, M. et al. Guidance document: Validation of a high-performance liquid chromatography-tandem mass spectrometry immunopeptidomics assay for the identification of HLA class I ligands suitable for pharmaceutical therapies*. *Molecular & Cellular Proteomics*. **19** (3), 432–443 (2020).
23. Fritsche, J. et al. Pitfalls in HLA ligandomics – How to catch a li(e)gand. *Molecular & Cellular Proteomics*. **20**, 100110(2021).
24. Caron Lab GitHub. at <<https://github.com/CaronLab/MhcVizPipe>> (2021).
25. Jurtz, V., Paul, S., Andreatta, M., Marcatili, P., Peters, B., Nielsen, M. NetMHCpan-4.0: Improved peptide–MHC Class I interaction predictions integrating eluted ligand and peptide binding affinity data. *The Journal of Immunology*. **199** (9), 3360–3368 (2017).
26. Reynisson, B., Alvarez, B., Paul, S., Peters, B., Nielsen, M. NetMHCpan-4.1 and NetMHCIpan-4.0: improved predictions of MHC antigen presentation by concurrent motif deconvolution and integration of MS MHC eluted ligand data. *Nucleic Acids Research*. **48** (W1), W449–W454 (2020).
27. Andreatta, M., Alvarez, B., Nielsen, M. GibbsCluster: unsupervised clustering and alignment of peptide sequences. *Nucleic Acids Research*. **45** (W1), W458–W463 (2017).
28. Nielsen, M. et al. NetMHCpan, a method for quantitative predictions of peptide binding to any HLA-A and -B Locus protein of known sequence. *PLoS ONE*. **2** (8), e796 (2007).
29. Fortier, M. -H. et al. The MHC class I peptide repertoire is molded by the transcriptome. *The Journal of Experimental Medicine*. **205** (3), 595–610 (2008).
30. Marco, M. D., Schuster, H., Backert, L., Ghosh, M., Rammensee, H. -G., Stevanovic, S. Unveiling the peptide motifs of HLA-C and HLA-G from naturally presented peptides and generation of binding prediction matrices. *The Journal of Immunology*. **199** (8), 2639–2651 (2017).
31. Sarkizova, S. et al. A large peptidome dataset improves HLA class I epitope prediction across most of the human population. *Nature Biotechnology*. **38** (2), 199–209 (2019).
32. Pak, H. et al. Sensitive immunopeptidomics by leveraging available large-scale multi-HLA spectral libraries, data-independent acquisition and MS/MS prediction. **20**, 100080 (2021).
33. Nielson, M. NetMHNetMHCpan 4.1 Motif Viewer. at http://www.cbs.dtu.dk/services/NetMHCpan/logos_ps.php. (2021).
34. Racle, J. et al. Robust prediction of HLA class II epitopes by deep motif deconvolution of immunopeptidomes. *Nature Biotechnology*. **37** (11), 1283–1286 (2019).
35. Abelin, J. G. et al. Defining HLA-II ligand processing and binding rules with mass spectrometry enhances cancer epitope prediction. *Immunity*. **51** (4), 766–779.e17 (2019).
36. Nielson, M. NetMHCIpan 4.0 Motif Viewer. at <http://www.cbs.dtu.dk/services/NetMHCIpan/logos.php> (2021).

37. Sofron, A., Ritz, D., Neri, D., Fugmann, T. High-resolution analysis of the murine MHC class II immunopeptidome. *European Journal of Immunology*. **46** (2), 319–328 (2015).
38. Kovalchik, K. A. et al. Immunopeptidomics for Dummies: Detailed Experimental Protocols and Rapid, User-Friendly Visualization of MHC I and II Ligand Datasets with MhcVizPipe. *bioRxiv* 2020.11.02.360958 (2020).
39. Schuster, H. et al. The immunopeptidomic landscape of ovarian carcinomas. *Proceedings of the National Academy of Sciences*. **114** (46), E9942–E9951 (2017).
40. Berlin, C. et al. Mapping the HLA ligandome landscape of acute myeloid leukemia: a targeted approach toward peptide-based immunotherapy. *Leukemia*. **29** (3), 1–13 (2014).
41. Rijensky, N. M. et al. Identification of tumor antigens in the HLA peptidome of patient-derived xenograft tumors in mouse. *Molecular & Cellular Proteomics*. **19** (8), 1360–1374 (2020).
42. Heather, J. M. et al. Murine xenograft bioreactors for human immunopeptidome discovery. *Scientific Reports*. **9** (1), 18558 (2019).
43. Marcu, A. et al. HLA ligand atlas: A benign reference of HLA-presented peptides to improve T-cell-based cancer immunotherapy. *Journal for Immunotherapy of Cancer*. **9** (4), e002071 (2021).
44. Shraibman, B. et al. Identification of tumor antigens among the HLA peptidomes of glioblastoma tumors and plasma. *Molecular & Cellular Proteomics*. **18** (6), 1255–1268 (2019).
45. Bassani-Sternberg, M., Barnea, E., Beer, I., Avivi, I., Katz, T., Admon, A. Soluble plasma HLA peptidome as a potential source for cancer biomarkers. *Proceedings of the National Academy of Sciences*. **107** (44), 18769–18776 (2010).
46. Demmers, L. C., Heck, A. J. R., Wu, W. Pre-fractionation extends, but also creates a bias in the detectable HLA class I ligandome. *Journal of Proteome Research*. **18** (4), 1634–1643 (2019).
47. Kowalewski, D. J., Stevanović, S. Antigen processing, *Methods and Protocols*. **960**, 145–157 (2013).
48. Bentley, G. et al. High-resolution, high-throughput HLA genotyping by next-generation sequencing. *Tissue Antigens*. **74** (5), 393–403 (2009).
49. Boegel, S., Löwer, M., Bukur, T., Sahin, U., Castle, J. C. A catalog of HLA type, HLA expression, and neo-epitope candidates in human cancer cell lines. *OncImmunology*. **3** (8), e954893 (2014).
50. Klaeger, S. et al. Optimized liquid and gas phase fractionation increases HLA-peptidome coverage for primary cell and tissue samples. *Molecular & Cellular Proteomics*. **20**, 100133 (2021).
51. Hassan, C. et al. Accurate quantitation of MHC-bound peptides by application of isotopically labeled peptide MHC complexes. *Journal of Proteomics*. **109**, 240–244 (2014).
52. Ritz, D., Kinzi, J., Neri, D., Fugmann, T. Data-independent acquisition of HLA Class I peptidomes on the Q exactive mass spectrometer platform. *Proteomics*. **17** (19), 10.1002/pmic.201700177 (2017).
53. O'Donnell, T. J., Rubinsteyn, A., Laserson, U. MHCflurry 2.0: Improved pan-allele prediction of MHC Class I-presented peptides by incorporating antigen processing. *Cell Systems*. **11** (1), 42-48.e7 (2020).
54. O'Donnell, T. J., Rubinsteyn, A., Bonsack, M., Riemer, A. B., Laserson, U., Hammerbacher, J. MHCflurry: Open-source Class I MHC binding affinity prediction. *Cell Systems*. **7** (1), 129–132.e4 (2018).
55. Faridi, P., Purcell, A. W., Croft, N. P. In immunopeptidomics we need a sniper instead of a shotgun. *Proteomics*. **18** (12), 1700464 (2018).

740
741

FIGURE 1

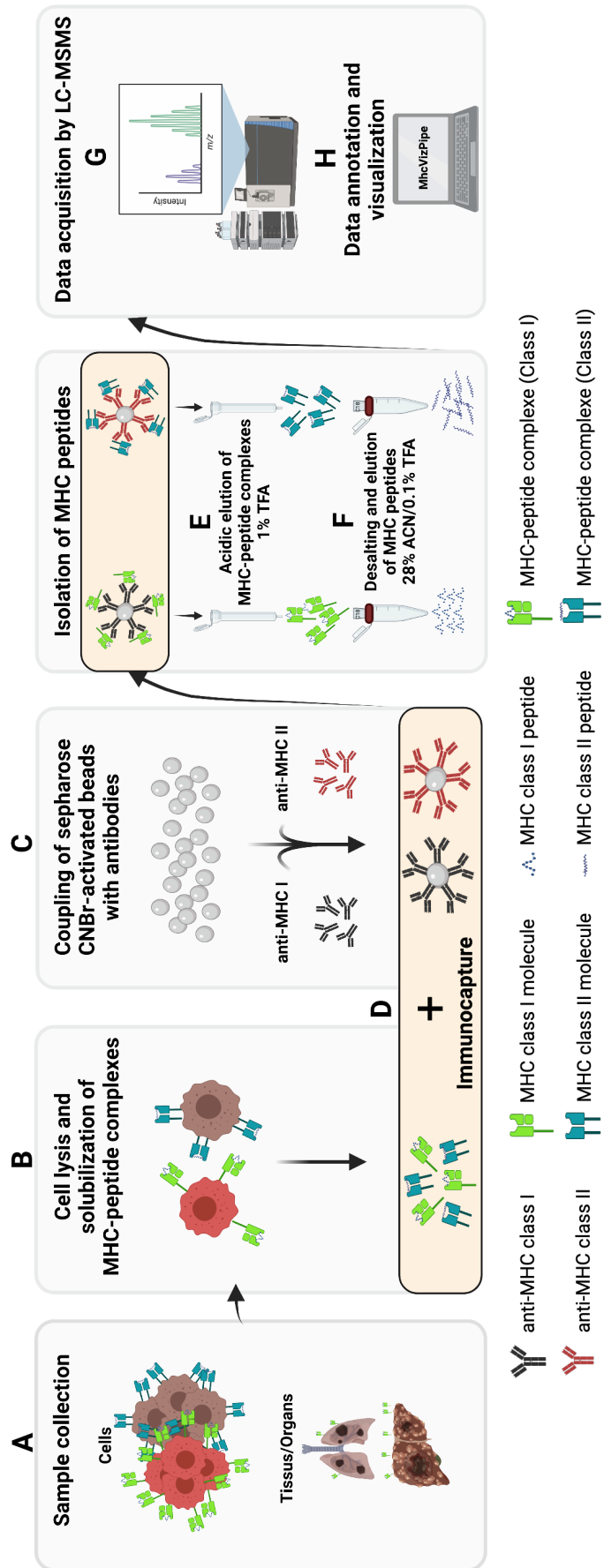


FIGURE 2

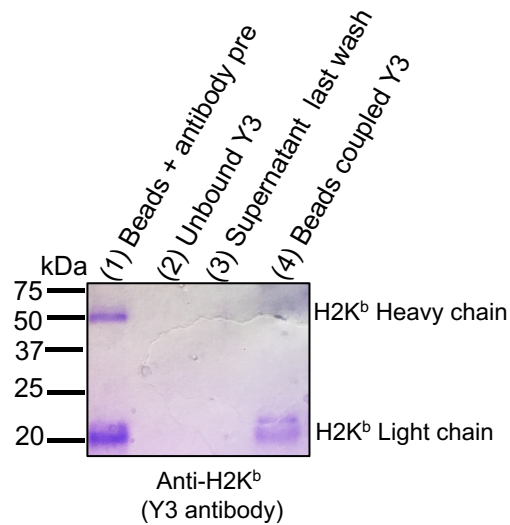


FIGURE 3

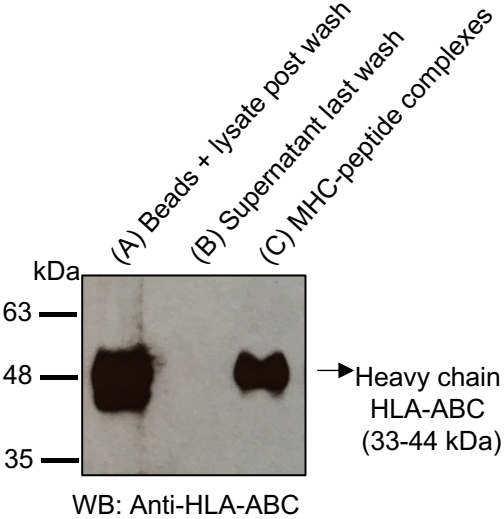


FIGURE 4

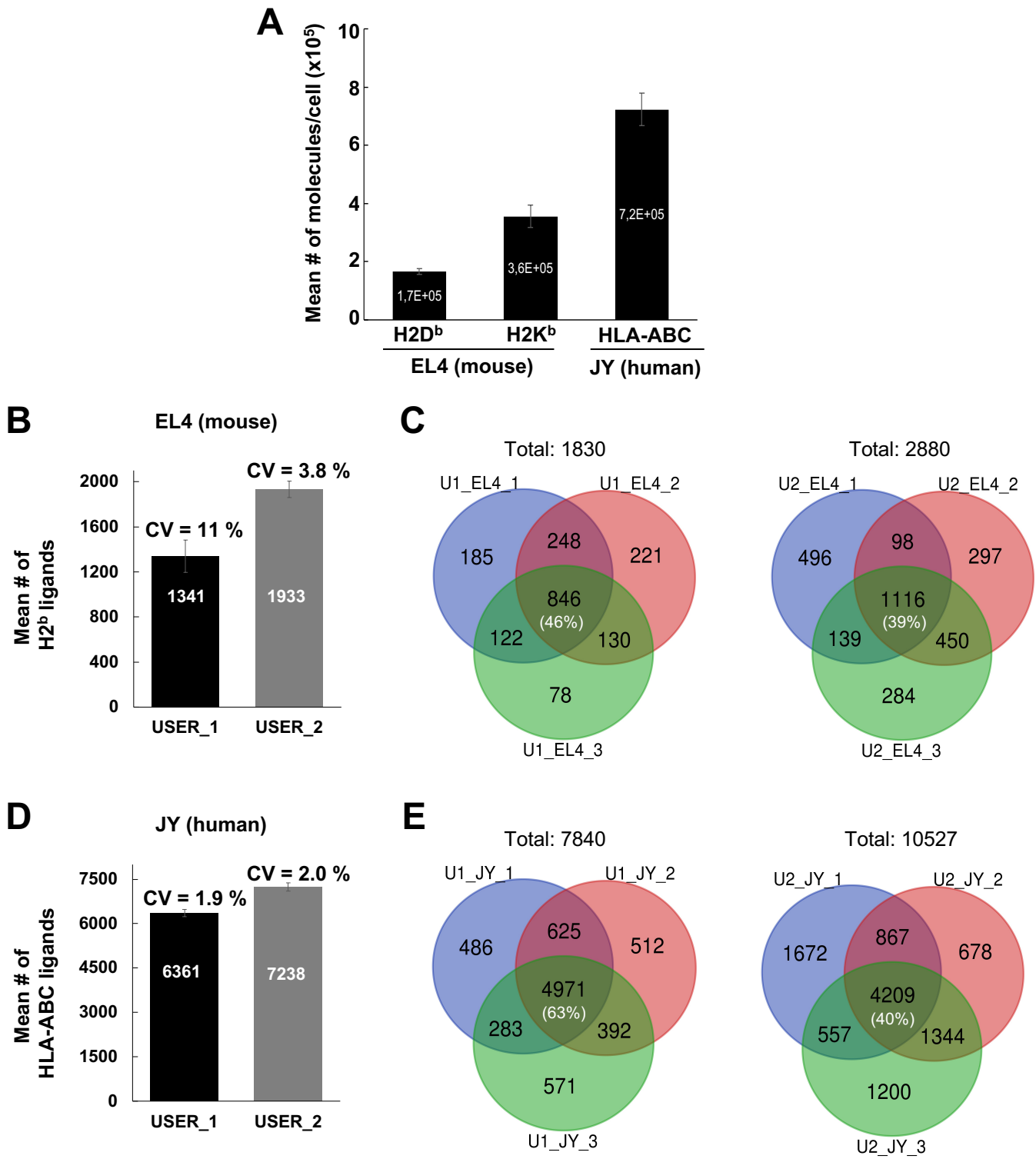
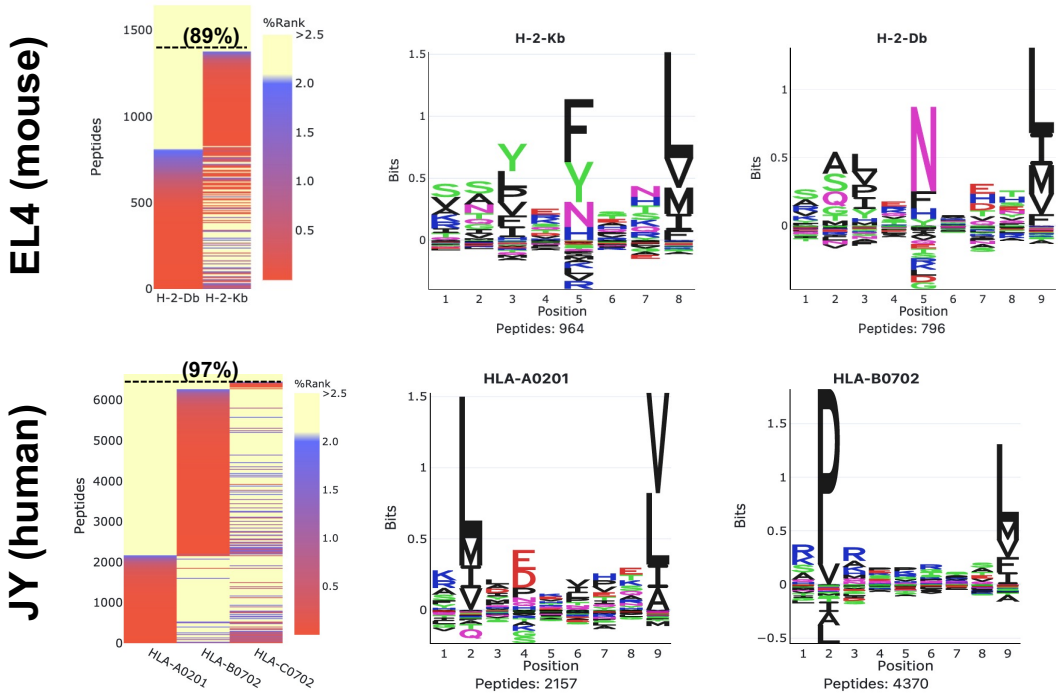


FIGURE 5

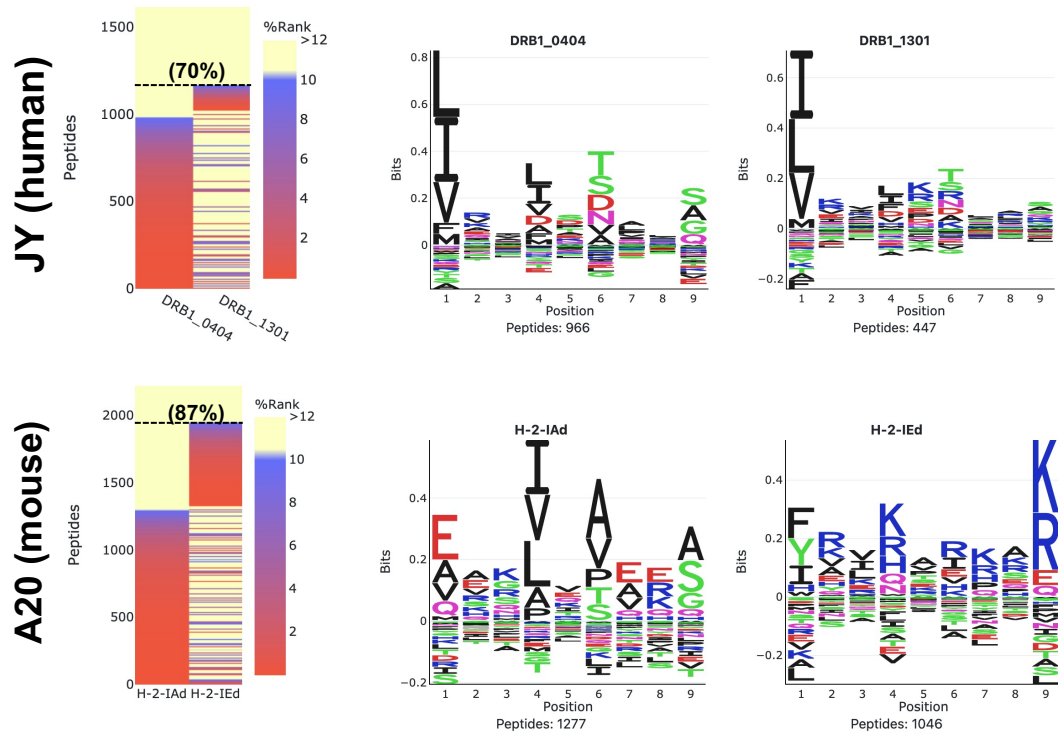
A

MHC class I



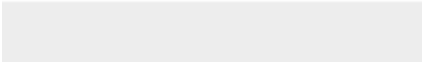
B

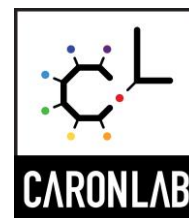
MHC class II





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**CHU Sainte-Justine**Le centre hospitalier
universitaire mère-enfantUniversité 
de MontréalEtienne Caron
Assistant ProfessorDepartment of Pathology and Cell Biology
University of Montreal

Montreal, September 17, 2021

Re. JoVE63052R1

Dear Amit,

Thank you for your letter regarding the manuscript we submitted for publication in *Jove* entitled **"Isolation of mouse and human MHC class I- and II-associated peptides for the analysis of immunopeptidomes by mass spectrometry"**. Your comments as well as the reviewers' comments were very useful and we have addressed them all to improve the quality and accuracy of the protocol. Please note that we have also decided to slightly change the title of the manuscript, which is now more similar to our BioRxiv preprint version available online and downloaded so far more than 1,000 times.

We uploaded all the required files on EM. Two versions of the manuscript were uploaded: one version with the changes highlighted in yellow, and another version with sections highlighted in green for the video.

We hope that you will agree with the changes and we are looking forward to hearing back from you.

With best regards,

Etienne Caron, PhD



POINT-BY-POINT RESPONSE TO THE EDITOR'S AND REVIEWERS' COMMENTS

EDITORIAL COMMENTS

1. Please take this opportunity to thoroughly proofread the manuscript to ensure that there are no spelling or grammar issues.

RESPONSE: We proofread the manuscript and did our best to ensure that there are no spelling or grammar issues.

2. Please provide an institutional email address for each author.

RESPONSE: We added an institutional email address for each author in the revised manuscript. See p.1:

Institutional Email address for each author:

Isabelle Sirois : isabelle.sirois.hsj@ssss.gouv.qc.ca

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3. Please provide a Summary that clearly describes the protocol and its applications in complete sentences between 10-50 words: "Here, we present a protocol to ...".

RESPONSE: We added a Summary before the Abstract. We now mention (27-30): 'Here, we present a protocol for the purification of MHC class I and class II peptide complexes from mouse and human cell lines providing high quality immunopeptidomic data. The protocol focusses on sample preparation using commercially available antibodies.'

4. Please define all abbreviations before use. For example, SDS-PAGE, PBS, TFA

RESPONSE: We made the requested changes and added an Abbreviation section (lines 614-630).

5. Please revise the text to avoid the use of any personal pronouns (e.g., "we", "you", "our" etc.).

RESPONSE: We removed all personal pronouns.

6. Please revise the following lines to avoid previously published work: 17-18, 34-35, 50-60, 64-70, 119, 132-139, 189-191, 209-212, 214-218, 222-224, 246-249, 252-254, 262-264, 267-269, 270-271.

RESPONSE: Following the email from the editor (i.e. Please note that you can exclude the lines showing duplication with your articles uploaded in biorxiv preprint server. Please reword lines 34-36, 247-249.), We have reworded the requested lines 34-36 (lines 52-60) and removed lines 247-249.

7. JoVE cannot publish manuscripts containing commercial language. This includes trademark symbols (™), registered symbols (®), and company names before an instrument or reagent. Please remove all commercial language from your manuscript and use generic terms instead. All commercial products should be sufficiently referenced in the Table of Materials.

For example QIFIKIT,

RESPONSE: We removed the term QIFIKIT and added a reference for quantification using this kit. We also replaced the term Bio-Rad by polypropylene column.

8. Please include an ethics statement before your numbered protocol steps, indicating that the protocol follows the animal care guidelines of your institution.

RESPONSE: N/A. This protocol is not related to animal use or study.

9. Please include a human ethical clearance statement in case the cells were isolated from human samples. If commercial cell lines were used, please ignore this comment.

RESPONSE: We used commercial cell lines and we ignored this comment.

10. Please adjust the numbering of the Protocol to follow the JoVE Instructions for Authors (attached for your reference). For example, 1 should be followed by 1.1 and then 1.1.1 and 1.1.2 if necessary. Please refrain from using bullets or dashes.

RESPONSE: We adjusted the numbering as requested.

11. Please remove the blue highlighting throughout.

RESPONSE: We removed the blue highlighting.

12. Line 63-73/187-194 Please ensure that the Protocol section consists of numbered steps. We cannot have non-numbered paragraphs/steps/headings/subheadings.

RESPONSE: We applied this recommendation throughout the protocol.

13. Line 67/194: Please add the link as a reference and cite the relevant reference number here.

RESPONSE: We added the links as references and cited them in the revised text of the manuscript.

14. JoVE does not have a Tip section in its protocols. Please use “Note” instead of Tip. Any text that cannot be written in the imperative tense may be added as a “Note.” However, notes should be concise and used sparingly.

RESPONSE: We used ‘Note’ instead of ‘Tip’ in the revised version of the manuscript. We think that the current ‘Notes’ in the revised manuscript are very important since they do not appear anywhere else in the literature and they will be very useful for non-experts.

15. Please use °C instead of degree Celsius and the symbol μ instead of u throughout the manuscript.

RESPONSE: We changed that throughout the manuscript.

16. Please add more details to your protocol steps. Please ensure you answer the “how” question, i.e., how is the step performed? Alternatively, add references to published material specifying how to perform the protocol action.

RESPONSE: We reviewed carefully each section and adjusted the text according to your recommendations using the ‘how’ question.

17. Line 89, 97, 104, 124: Protocol: Is this done by hand, or any instrument is used? If any instrument is used, please mention the rotation speed.

RESPONSE: We added the words ‘using a rotator device’ to these 4 lines as well as the speed (RPM).

18. Line 94: Which antibody is used? Is the antibody diluted? Please specify.

RESPONSE: We specified the requested info.

19. Line 103, 106, 110: Please specify the component to which glycine and PBS are added.

RESPONSE: Glycine and PBS are prepared with water as mentioned in the Supplementary Table S1.

20. Line 119: Which cells are used here? Please specify.

RESPONSE: We clarified this section in the text.

21. Line 127: Are these the beads from line 112? Please specify.

RESPONSE: We have made the protocol clearer by referring to specific numbered steps.

22. Line 128: Is this the supernatant from line 126? please specify. Also please mention the rotation speed.

RESPONSE: We have made the protocol clearer by referring to specific numbered steps and added the rotation speed.

23. Line 132: Which column is being discussed here? please specify.

RESPONSE: We now explain more clearly the type of column used in this section.

24. Line 146: Please mention the volume of the beads- lysate mixture being added to the column.

RESPONSE: We added this information in the Note section.

25. Line 148: Is the tube mentioned here a collection tube? Please specify. Also please provide details as to what kind of tube it is. Whether it is a micro-centrifuge tube, a glass vial, or anything else.

RESPONSE: We made sure that all the tubes mentioned in the text are well described.

26. Line 154, 156: Are the beads and the column elute collected in the same tube? What are the beads being mixed in? Please mention.

RESPONSE: We explained more clearly the use of the polypropylene column in the Note of section 2.

27. Line 158: Please mention the final elute volume.

RESPONSE: We added the requested information (600 μ L).

28. Line 175: What is the total volume of the eluted peptides? Please specify.

RESPONSE: We added the requested information (300 μ L).

29. Line 183: Please specify the speed, temperature, and other instrument settings used for speed-vac.

RESPONSE: We added the requested information.

30. Line 185: Is the sample re-dissolved? Please specify. If the LC-MS/MS part needs to be filmed, please provide details for this.

RESPONSE: We specified how the sample is re-dissolved in a brief section entitled 'Identification of MHC class I and II peptides by LC-MS/MS' (i.e. Samples are solubilized in 50 μ L of 4% formic acid (FA)). However, the focus of this protocol is not on the LC-MS/MS part but really on the steps to isolate the peptides. Therefore, the LC-MS/MS part was only very briefly covered in the revised version of the manuscript to address one of the reviewer's #1 comments, but will not be filmed to stay within the scope of the protocol.

31. Please include a one-line space between each protocol step and then highlight up to 3 pages of the Protocol (including headings and spacing) that identifies the essential steps of the protocol for the video, i.e., the steps that should be visualized to tell the most cohesive story of the Protocol. Remember that non-highlighted Protocol steps will remain in the manuscript, and therefore will still be available to the reader.

RESPONSE: We are providing a separate version of the manuscript with important protocol steps highlighted in green.

32. Please include at least one paragraph of text to explain the Representative Results in the context of the technique you have described, e.g., how do these results show the technique, suggestions about how to analyze the outcome, etc. The paragraph text should refer to all the figures. Data from

both successful and sub-optimal experiments can be included. However, for figures showing the experimental set-up, please reference them in the Protocol.

RESPONSE: We added a 'Representative Results' section in the revised version of the manuscript to address the editor comment and also to address several of the reviewers' comments. This new section is divided in four parts: 1) Sample preparation, 2) Reproducibility, 3) Predicted MHC binding strength of identified peptides and clustering results for different MHC allele, and 4) MVP reports.

33. As we are a methods journal, please revise the Discussion to explicitly cover the following in detail in 3-6 paragraphs with citations:

- a) Critical steps within the protocol*
- b) Any modifications and troubleshooting of the technique*
- c) Any limitations of the technique*
- d) The significance with respect to existing methods*
- e) Any future applications of the technique*

RESPONSE: We have re-written the discussion to explicitly cover point (a) to (e) in detail in the revised version of the manuscript.

34. Figure 1: Please use uppercase letters to label the figure. Do not use numbers.

RESPONSE: We have made the requested changes.

35. Figure 2 legend: Please mention the number of samples used in the figure legends.

RESPONSE: We have made the requested changes.

36. Please provide a separate file for each figure and upload it in your Editorial Manager account.

RESPONSE: We uploaded on EM a separate file for each figure.

Reviewers' comments:**REVIEWER #1***Manuscript Summary:*

Sirois I. et al. describe a protocol for the purification of MHC class I and class II complexes from mouse and human cell lines providing robust HLA peptidome data. The authors focus on the wetlab side of the process starting with commercially available antibodies against MHC complexes and finishing largely with the purified and desalted MHC peptides. Mass spectrometry is not covered, while the bioinformatic analysis of the resulting MHC peptide identifications is only briefly touched. The protocol itself is largely self explanatory and robust, however, does not touch one of the main difficulties in MHC peptidomics, the purity of solutions concerning small molecular weight contaminations. Several points need to be addressed for the readers to follow the protocol and obtain high quality MHC peptidomes.

Major Concerns:

All buffers containing acetonitrile and/or TFA are aggressive and can lead to contamination of the sample with small molecular and polymeric substances such as plasticizers if in contact with plastic. As such, the protocol should give guidance on preparing, storing and handling buffers with acetonitrile and/or TFA.

RESPONSE 1.1: We thank the reviewer for his/her comment. In the revised version of the manuscript, we now mention (lines 164-172): 'Also note that all buffers containing acetonitrile and/or TFA are aggressive and can lead to contamination of the sample with small molecular and polymeric substances such as plasticizers if in contact with plastic. To avoid such issues, all solutions containing organic solvent and/or TFA are prepared fresh daily and stored in glass bottle until use. Moreover, the majority of the steps are performed in Eppendorf Protein LoBind plastic tube (when the volume allows it). These tubes are specifically designed for use in proteomics and are made of highest quality, virgin polypropylene free of biocides, plasticizers and latex. They are also produced with optimized, highly polished molds without the use of slip agents. These precautions are important to consider to enable generation of high quality immunopeptidomic data.'

It is fine if the authors largely refer to other publications and reviews for mass spectrometric parameters. However, I believe this should be briefly touched as this relates to the quantity of the immunopeptidome. As such, authors should briefly describe their MS parameters and workflow including database search engine and parameters. They should make their MS data available through public repositories and provide lists of identified peptides. As such, readers can try to reproduce the authors results and establish the workflow in their laboratory by comparing the authors results with their own.

RESPONSE 1.2: We agree with the reviewer. We now provide a brief section entitled 'Identification of MHC class I and II peptides by LC-MS/MS'. We mention in the revised version of the manuscript (lines 245-266):

'3. Identification of MHC class I and II peptides by LC-MS/MS'

High-performance Orbitrap and high-resolution quadrupole time-of-flight mass spectrometers are the most suitable mass spectrometers for the analysis of the MHC class I and II immunopeptidome. The following information is given as an indication only, taking into account that the various existing tandem mass spectrometry instruments operate according to different operational standards.

Briefly, dried samples (from step 2.2.18) are solubilized in 50 µL of 4% formic acid (FA). Three injections of 16 µL for each sample are loaded and separated on a home-made reversed-

phase column (150- μ m i.d. by 250 mm length, Jupiter 3 μ m C18 300 Å) with a gradient from 5 to 30% ACN-0.1% FA and a 600-nl/min flow rate on an Easy nLC-1200 connected to an Orbitrap Eclipse (Thermo Fisher Scientific, San Jose, CA). Each full MS spectrum is acquired at a resolution of 120000, an AGC of 4×10^5 with automatic mode for the injection time. It is followed by tandem-MS (MS-MS) spectra acquisition on the most abundant multiply charged precursor ions for a maximum of 3s. Tandem-MS experiments is performed using higher energy collisional dissociation (HCD) at a collision energy of 30%, a resolution of 30,000, an AGC of 1.5×10^5 , and an injection time of 300ms. Data files from the three injections/sample are processed using PEAKS X software (Peaks Pro V10.6, Bioinformatics Solutions, Waterloo, ON) using the mouse and human databases (UniProtKB/Swiss-Prot (2019_09)). 'Unspecified enzyme digestion' is selected for the enzyme parameter and mass tolerances on precursor and fragment ions were 10 ppm and 0.01 Da, respectively. Variable modifications are deamidation (NQ) and oxidation (M). All other search parameters are the default values. Final peptide lists are filtered using ALC of 80% and with a false discovery rate (FDR) of 1 % using the PEAKS software.'

All MS data were uploaded into PRIDE

(<http://proteomecentral.proteomexchange.org/cgi/GetDataset>) (px-submission #532367) and will be made available to the public upon acceptance of the manuscript. We are now providing lists of identified peptides in Supplementary Table S2.

In this protocol, the MHCviz pipeline is used to visualize data. However, the protocol does not indicate how this is done. In my opinion, the data analysis is critical and the authors should provide guidance on how to use their bioinformatic pipeline.

RESPONSE 1.3: We thank the reviewer for his/her comment. We agree that the visualization steps are important. However, they are not within the scope of the current protocol, which focusses on the peptide isolation procedure. Instead, those steps are thoroughly described in a separate manuscript entitled 'MhcVizPipe: A Quality Control Software for Ultra-Rapid Assessment of Mass Spectrometry-based Immunopectidomics Data', which is currently under revision (2nd round of revision) at Mol. Cell. Proteomics. To address the reviewer's comment, we added a brief section in the revised version of the current protocol entitled 'Visualization of immunopectidomic data'. We now mention (lines 268-278):

'4. Visualization of immunopectidomic data

The quality of immunopectidomic data generated by MS can be assessed in multiple ways, as recently described^{28,29}. To visualize the data and assess their overall quality, composition and MHC-specificity, the MhcVizPipe (MVP) software tool can be used. All the instructions and related documentations to install and run the MVP software are available at the Caron Lab GitHub website³⁰. Briefly, MVP provides a rapid and consolidated view of sample quality, composition and MHC-specificity. MVP parallelizes the use of well-established immunopectidomic algorithms (NetMHCpan³¹, NetMHCIIpan³² and GibbsCluster³³ and generate organized and easy-to-understand reports in HTML format. The reports are fully portable and can be viewed on any computer with a modern web browser. See Supplementary Data S1-S4 for examples of HTML reports.'

Figure 5: There are a few peptides from JY predicted to bind to C7. Wha is their motif not presented?

RESPONSE 1.4: This point was also raised by Reviewer #3. See Response 3.11 below.

EL4_M1 data shows three different motifs, why is that? How can the MHCvizPipe provide three motifs when using NetMHCpan to annotate peptides to alleles and EL4 expressing only two alleles?

RESPONSE 1.5: This was indeed confusing. One of the clusters was actually generated from peptides associated to non-classical Qa2 molecules. The M1 antibody cross-react with Qa2.

We clarified this point in the revised version of the manuscript. We now mention (lines 310-321): ‘For mouse MHC class I (H2D^b and H2K^b) peptides in EL4 cells (Figure 5A; upper panels and Supplementary Data S1), a representative heatmap shows that 89% of all detected 8-12-mer peptides are predicted to be Strong Binders (SB: NetMHCpan %Rank < 0.5) or Weak Binders (WB: NetMHCpan %Rank < 2) for H2D^b or H2K^b molecules. Sequence clusters generated from the 8-12-mer peptides are in concordance with reported logos for H2D^b (asparagine at P5 and Leucine at P9) and H2K^b (phenylalanine at P5 and leucine at P8) (Figure 5)³⁶. It is worth mentioning that a third dominant motif (histidine at P7 and leucine at P9) as well as additional ‘artefactual’ motifs can be observed using the M1 antibody (Supplement Data S1). In fact, the M1 antibody is known to cross-react with the non-classical Qa2 molecules, and therefore, Qa2-associated peptides are also detected by MS (Supplementary Data S1). Here, for simplicity, Figure 5 focusses on showing the peptide binding motifs for the two classical H2^b alleles (i.e. H2D^b or H2K^b) expressed in EL4 cells.’

H2-Kb is presenting mostly 8mers, is this possible to see in the MHCvizPipe?

RESPONSE 1.6: MhcVizPipe generates a html report and all information regarding peptide lengths, NetMHC predictions and clustering results are available in zip file generated by MhcVizPipe.

In general, EL4 data presented here is not providing the known motifs for their MHC alleles as can be found in Fortier, M.-H., et al. (2008) JEM, 205, 3, 595.

RESPONSE 1.7: In the revised version of the manuscript, we now mention (lines 310-321): ‘For mouse MHC class I (H2D^b and H2K^b) peptides in EL4 cells (Figure 5A; upper panels and Supplementary Data S1), a representative heatmap shows that 89% of all detected 8-12-mer peptides are predicted to be Strong Binders (SB: NetMHCpan %Rank < 0.5) or Weak Binders (WB: NetMHCpan %Rank < 2) for H2D^b or H2K^b molecules. Sequence clusters generated from the 8-12-mer peptides are in concordance with reported logos for H2D^b (asparagine at P5 and Leucine at P9) and H2K^b (phenylalanine at P5 and leucine at P8) (Figure 5)³⁶. It is worth mentioning that a third dominant motif (histidine at P7 and leucine at P9) as well as additional ‘artefactual’ motifs can be observed using the M1 antibody (Supplement Data S1). In fact, the M1 antibody is known to cross-react with the non-classical Qa2 molecule, and therefore, Qa2-associated peptides are also detected by MS (Supplementary Data S1). Here, for simplicity, Figure 5 focusses on showing the well- established peptide binding motifs for the two classical H2^b alleles (i.e. H2D^b or H2K^b) expressed in EL4 cells.’

Finally, the JY data is in disagreement with the known DRB motifs of JY (see Racle, J., et al. (2019) Nature Biotechnology, 37, 1283).

RESPONSE 1.8: We thank the reviewer for this comment. We revised the Figure 5 and main text. We now mention (Lines 327-335): ‘For human HLA class II (HLA-DR) peptides in JY cells (Figure 5B; upper panels and Supplementary Data S2), a representative heatmap shows that 70% of all detected 9-22-mer peptides are predicted to be SB or WB for HLA-DRB1*0404 and -DRB1*1301. Peptide binding motifs for these two alleles are shown (Figure 5B). Note that the peptide binding motifs shown here may not be in complete concordance with the recently reported logos for HLA-DRB1*0404 and -DRB1*1301⁴¹. This discrepancy highlights the current inability of NetMHCpan to precisely annotate peptides to HLA class II alleles that are less characterized, such as HLA-DRB1*0404 and -DRB1*1301 expressed in JY cells. Additional information on class II peptide binding motifs can be found in other studies^{41 42} and from the NetMHCIIpan 4.0 Motif Viewer website⁴³.’

In general, these discrepancies with known data exemplifies the inability of NetMHCpan (which is behind the MHCvizpipe) to correctly annotate peptides to MHC alleles if they are less characterized. The authors should at least discuss the difficulties in the annotation of peptides to MHC alleles.

RESPONSE 1.9: We agree with the reviewer. See Response 1.8 above. We also mention in the revised version of the discussion (Lines 410-415): ‘Other limitations in immunopeptidomics are the reproducibility of the methods and the inability of the NetMHCpan suite tools to correctly annotate peptides to MHC alleles that are less characterized. In this regard, further development and application of relatively new data-independent acquisition MS methods^{7,39,51} as well as new peptide clustering and MHC peptide binding prediction algorithms^{38,41,52,53} are expected to improve the reproducibility and the accuracy of peptide annotation in immunopeptidomics.’.

Minor Concerns:

Figure 2: y-axis tick marks are missing.

RESPONSE 1.10: We added the y-axis tick marks. This is now Figure 4A in the revised manuscript.

156 10. Mix the beads by pipetting up and down 5 times and let the solution eluate and transfer in a should read "let the solution elute and transfer to a"

RESPONSE 1.11: We now mention (lines 203-206):

‘11. Add 300 µL of 1% TFA to the polypropylene column and mix the beads by pipetting up and down 5 times. The beads will be retained in the polypropylene column and the MHC bound peptides will elute in the 2.0 mL microcentrifuge tube.

12. Transfer the eluate in a new 2.0 mL microcentrifuge tube.’

178 8. Wash the sample with 200µL of 0.1%TFA, then centrifuge at 1546 x g for 3 min

This step is unclear, how to wash the sample (resin?) before centrifugation?

RESPONSE 1.12: We now mention (lines 224-225):

‘5. Add 200µL of 0.1%TFA on top of the C18 column, then centrifuge at 1546 x g for 3min.

6. Discard flow through.’

PBS seems to be non-commercial; the recipe of the PBS should be given then.

RESPONSE 1.13: It is commercial. We added this information in the Supplementary Table S1.

What pH is the Lysis Buffer?

RESPONSE 1.14: We did not measure the pH of this solution.

Which protease inhibitors are used?

RESPONSE 1.15: Protease inhibitors are listed in the Supplementary Table S1.

0.2M glycine, what should the pH of this buffer be?

RESPONSE 1.16: We did not measure the pH of this buffer.

The recipes of buffer B and C contain fragments of French: "5.26 g de NaCl in 600 ml de Buffer C"

RESPONSE 1.17: We made the correction in Supplementary Table S1.

REVIEWER #2

Manuscript Summary:

This manuscript described the protocol for the isolation of mouse immunopeptidomes. The protocol is well written and ready-to-use in any laboratory. Because the protocol for the isolation of HLA-ABC-associated peptides from human samples is relatively easier to perform and is more widespread in the community, this manuscript is highly interested to the community. It is recommended to be accepted as a publication in JoVE.

RESPONSE 2.1: We thank the reviewer for his/her positive assessment of our work.

Major Concerns:

No

REVIEWER #3

Manuscript Summary:

The current manuscript of Sirois and Isabelle et al. entitled "Isolation of mouse and human MHC class I- and II-associated peptides for the analysis of immunopeptidomes by mass spectrometry" concisely illustrates in detail the sample preparation for immunopeptidomics experiments prior to the mass spectrometric and data analysis follow up parts. While related protocols have been described recently, the presented manuscript represents a valuable resource and in combination with a potential follow-up video will afford newcomers to the field an easy introduction to immunopeptidomics sample prep.

After the correction of a few minor points, I recommend publication of the underlying work.

RESPONSE 3.1: We thank the reviewer for his/her positive assessment of our protocol.

Major Concerns:

I do not have any major concerns.

Minor Concerns:

1) Line 64-66: While I agree that HLA typing of the cell line or tissue under analysis will be beneficial and might be required for certain application, the use of pan-MHC class I or II antibodies allows to bypass this strict prerequisite in many cases. I suggest to rephrase the sentence accordingly.

RESPONSE 3.2: We agree with the reviewer. In the revised version of the manuscript, we now mention (lines 388-392): ‘The W6/32 antibody enables the isolation of peptides presented by all HLA-ABC class I molecules in human and is the most widely used and established antibody in the field. High-resolution HLA typing of uncharacterized human cell lines or biospecimens is not a necessity upon application of the W6/32 antibody but is nevertheless recommended for certain applications to facilitate data interpretation.’

2) Line 67: Please consider adding PMID: 25960936 here as a reference since it is a valuable resource for cell line HLA types and expression levels including a very compact overview of many relevant cell lines.

RESPONSE 3.3: We added the reference suggested by the reviewer. We now mention in the discussion (Lines 392-393): ‘HLA/MHC typing information can also be found in public resources for multiple cell lines and mouse models⁴⁸.

3) Line 89: Consider adding an estimate of the rotational speed for slow rotation in rpm to allow easier reproduction of the experiment.

RESPONSE 3.4: We specified the rotation speed (line 99):

‘3. Rotate at 20 RPM for 30 min at room temperature using a rotator device.’

4) Line 94: In what concentration is it suitable to apply the antibody? Is it usually applied in PBS or other buffers including preservatives?

RESPONSE 3.5: We re-phrased this line and added the expected antibody concentration in PBS. We now mention (lines 106-109):

‘1. Prepare the antibody selected for the isolation of the MHC class I or II peptides in a new 2.0 mL microcentrifuge tube by adding 2 mg of the antibody (according to the concentration specified by the manufacturer). Complete the volume to 1 mL with the coupling buffer solution to get a final concentration of 2 mg/mL.’

5) Line 95: Add 6 μ L here as well, like in the following *Optional sentences.

RESPONSE 3.6: We added the missing information. We now mention (lines 116-118): 'Optional: Take an aliquot of 18 μ L (INPUT), add 6 μ L of 4x SDS-PAGE buffer and freeze immediately.'

6) Line 112: How long would you store them? Do you use preservatives like NaAzide? Or do you really make them the same day you do the actual immunoprecipitation? Please include this information.

RESPONSE 3.7: No preservative is added to the PBS solution. All solutions are freshly prepared the same day as we do the actual immunoprecipitation. We now clearly mention this point in (lines 131, 86-88)

7) Line 120: What if the cell pellet is substantially larger and homogenization by pipetting with 500 μ L is hard to achieve? Can you give a rule of thumb how much more volume to use in case of larger cell pellets?

RESPONSE 3.8: We now mention in the revised version of the protocol (lines 145-153):

'2. Add 500 μ L of PBS to the pellet and pipet up and down until homogenization.

Depending on the cell type, the cell pellet volume can vary substantially. If 500 μ L of PBS is not enough to dissolve the cell pellet, use more PBS until the cells disaggregate easily while pipetting up and down.'

'3 Measure the total volume of the pellet resuspended in PBS and transfer into a new tube 2 mL microcentrifuge tube. Split into more tubes if needed.

'4 Add a volume of cell lysis buffer (1% chaps buffer in PBS containing protease inhibitors¹ pellet/10 mL of buffer) equivalent to the volume of cell pellet resuspended in PBS measured in the previous step. The final concentration of the lysis buffer is 0.5% Chaps.'

8) Line 194: Cite your preprint on MhcVizPipe here since I believe this could be an interesting resource for the reader.

RESPONSE 3.9: We thank the reviewer for this comment. However, the MhcVizPipe preprint is outdated and confusing. In the revised version of the current Jove protocol, we now refer to the Caron Lab GitHub website to access up to date informations and documents to install and run the MhcVizPipe software (see <https://github.com/CaronLab/MhcVizPipe>). Upon acceptance of the MhcVizPipe manuscript, which is currently in revision (2nd round of revision) at Mol Cell Proteomics, we will add the reference and direct download access of the paper on our GitHub website.

9) Figure 5: Please elaborate in the figure caption on the % displayed below the motifs for easier understanding.

RESPONSE 3.10: We removed the % displayed below the motifs. This information was not necessary for the purpose of the manuscript. In the revised version of Figure 5, we only show the total number of peptides that were clustered within individual motifs.

10) Figure 5: Was no motif identified for HLA-C in JY cells here? Please explain why HLA-C ligands are often underrepresented as newcomers to the field might not be familiar with this.

RESPONSE 3.11: We thank the reviewer for this comment. We now mention in the revised version of the manuscript (lines 325-329): Binding motif for HLA-C*0702 is not shown in Figure 5A because the C*0702 allele has a relatively low expression level and therefore too few C*0702 peptides were isolated and identified here to generate a representative C*0702 motif. Note that the C*0702 motif can be visualized in other studies³⁷⁻³⁹ or from the NetMHCpan 4.1 Motif Viewer website⁴⁰.

11) Figure 5: Please explain here why DRB1_0404 was identified with three different motifs while DRB1_1304 was not.

RESPONSE 3.12: We thank the reviewer for raising this point. This is mainly due to the current inability of NetMHCpan to correctly annotate peptides to alleles that are less characterized. Following a similar comment from reviewer #1 (see Response 1.8), we have modified the Figure 5 and the corresponding text as follow (Lines 331-339): ‘For human HLA class II (HLA-DR) peptides in JY cells (Figure 5B; upper panels, Supplementary Data S3), a representative heatmap shows that 70% of all detected 9-22-mer peptides are predicted to be SB or WB for HLA-DRB1*0404 and -DRB1*1301. Peptide binding motifs for these two alleles are shown (Figure 5B). Note that the peptide binding motifs shown here may not be in complete concordance with the recently reported logos for HLA-DRB1*0404 and -DRB1*130141. This discrepancy highlights the current inability of NetMHCpan to precisely annotate peptides to HLA class II alleles that are less characterized, such as HLA-DRB1*0404 and -DRB1*1301 expressed in JY cells. Class II peptide binding motifs can also be visualized in other studies^{41,42} and from the NetMHCIIpan 4.0 Motif Viewer website⁴³.’

12) Figure 5: Please also comment on why two motifs were found for H2-Db.

RESPONSE 3.13: One of the motifs was actually specific for peptides binding the non-classical Qa2 molecule (histidine at P7 and leucine at P9)) whereas the right motif for H2D^b has an asparagine at P5 and a leucine at P9. We have corrected the Figure and text and now mention in the revised version of the manuscript (Lines 310-320): ‘For mouse MHC class I (H2D^b and H2K^b) peptides in EL4 cells (Figure 5A; upper panels, Supplementary Data S1), a representative heatmap shows that 89% of all detected 8-12-mer peptides are predicted to be Strong Binders (SB: NetMHCpan %Rank < 0.5) or Weak Binders (WB: NetMHCpan %Rank < 2) for H2D^b or H2K^b molecules. Sequence clusters generated from the 8-12-mer peptides are in concordance with reported logos for H2D^b (asparagine at P5 and Leucine at P9) and H2K^b (phenylalanine at P5 and leucine at P8) (Figure 5)³⁶. It is worth mentioning that a third dominant motif (histidine at P7 and leucine at P9) as well as additional ‘artefactual’ motifs can be observed using the M1 antibody (Supplement Data S1). In fact, the M1 antibody is known to cross-react with the non-classical Qa2 molecule, and therefore, Qa2-associated peptides are also detected by MS (Supplementary Data S1). Here, for simplicity, Figure 5 focusses on showing the well-established peptide binding motifs for the two classical H2^b alleles (i.e. H2D^b or H2K^b) expressed in EL4 cells.’

13) Figure 5: Please briefly explain the color-coding of the heatmaps, so readers can more readily grasp what are strong binders, weak binders and non-binders.

RESPONSE 3.14: We now explain the color-coding of the heatmaps in the legend of Figure 5 : ‘Heatmaps colors represent the MHC binding affinity predicted by NetMHCpan 4.1 (%rank). Strong Binders are red (%rank < 0.5), Weak Binders are blue (%rank < 2) and Non-Binders are yellow (%Rank > 2).’

14) Figure 5: Please mention also whether the presented motifs match the literature motifs expected for the respective cell lines and comment on deviations.

RESPONSE 3.15: We now mention whether the presented motifs match the literature motifs expected and we comment on deviations. Please see ‘representative results’ in the revised section of the manuscript entitled ‘Predicted MHC binding strength of identified peptides and clustering results for different MHC alleles’ (lines 302-343).

REVIEWER #4

Manuscript Summary:

The manuscript submitted by Sirois et al. describes one (of several as indicated in the text) method of preparing immunoaffinity capture beads for immunopeptidomic applications. The authors describe an approach using CNBr-coupled sepharose beads using different antibodies based on particular MHC receptor or allele. They show results obtained during the coupling process and cumulate with data showing the total # of peptides, predicted binding strength of identified peptides and clustering results for different alleles.

Major Concerns:

The authors couch this protocol to be used for quality control samples to presumably, but not overtly stated, validate assay performance for a particular experimental run. As such, the authors should have some data indicating the robustness of the protocol beyond merely saying between 2,000 and 10,000 MHC peptides from cell lines can be identified.

The authors should strongly consider showing reproducibility of each particular antibody-bead prep with the respective cell line used with that prep. For instance, what is the mean and the coefficient of variation of the number of peptides obtained from 3 replicates of L243 beads with the JY cell line. This information will provide the reader with reassurance of the reproducibility and thus adequateness of this protocol.

RESPONSE 4.1: We thank the reviewer for his/her comment. In the revised version of the manuscript, we provide new figure panels (see revised Figure 4 below) and text to show and describe the reproductivity of the technique using two different antibodies. In the 'Representative results' section, we now mention (Lines 289-300): 'Reproducibility: The intra- and inter-individual reproducibility of the results using the current protocol are shown in Figure 4. Representative results are shown for MHC class I peptides identified from 1×10^8 EL4 cells and 1×10^8 JY cells. Results were generated from two different lab members (User 1 and User 2). For User 1, the mean number of MHCI-specific peptides detected from EL4 and JY cells was 1341 and 6361, respectively; for User 2, 1933 and 7238, respectively (Figure 4B, D). The average coefficient of variation (CV) for the number of peptides detected across three different biological replicates/experiments varies from 1.9 to 11 % (Figure 4B, D). Although the CVs for the number of peptides detected across the three different experiments were relatively small, the identity of the peptides varied considerably (Figure 4C, E). Indeed, representative Venn diagrams show that the proportion of peptides that were reproducibly detected across three biological replicates ranged from 39% (User 2, EL4 cells) to 63% (User 1, JY cells) (Figure 4C, E).

Also, I find it interesting that the immunoprecipitation flow through was not analyzed in Figure 4. I would like to see if all of the HLA receptor has been captured by the beads. Perhaps this is what is meant by the description "SN last wash" in lane 2 of Figure 4 but this annotation does not seem to clearly convey this point, if in fact, it is the lysate FT after the beads + lysate are first loaded onto the BioRad column.

RESPONSE 4.2: We agree with the reviewer that it would have been optimal to have this information. Figure 4 is now Figure 3. Unfortunately, despite the fact that we often observe that there is merely no HLA receptor detected by western blot in the collected flowthrough following loading of the beads+lysate on the polypropylene column, we don't have a clean blot to show here. The fraction here refers to the supernatant of the wash. To address the reviewer's comment, we added a statement in the protocol (lines 177-178) and the Figure 3 legend to complete the missing information in the figure. Specifically, we now mention: 'Note that it is possible to assess the proportion of MHC-peptide complexes that were not captured by the antibody-coupled beads by collecting the flow through from 2.1 step 4. An aliquot can be added to the western blot (not shown on this gel).' We thank the reviewer for his/her comment and we hope that he/she will remain satisfy with the content of the current figure.

Minor Concerns:

Steps 2 and 3 in "Activation of the sepharose CNBR beads" section (page 2, lines 87 and 88) are confusing. Is the reader supposed to first resuspend the beads with 5 ml of 1 mM HCl and after resuspending add an additional 8.5 ml of 1 mM HCl for a total volume of 13.5 ml before rotating slowing for 30 min?

RESPONSE 4.3: Thanks for the comment. We clarified and now mention (Lines 94-103):

'1.1.1 Activation of the sepharose CNBr beads

1. Weigh 80 mg of sepharose CNBr-activated beads per sample and transfer to a 15 mL conical tube.
2. To facilitate resuspension of dried beads, first add 5 mL of 1 mM HCl and pipet up and down 5 times. Then, fill the conical tube with an additional 8.5 mL of 1 mM HCl.
3. Rotate at 20 RPM for 30 min at room temperature using a rotator device.
4. Centrifuge the beads at 200 x g for 2 min at room temperature and then remove the supernatant by aspiration.
5. Add 500 µL of coupling buffer to the beads pellet and transfer to a new 2.0 mL centrifuge tube and keep aside for 1.1.2 step 2.'

REVIEWER #5:

Manuscript Summary:

There has been rapid development in the field of immuno-peptidome and a number of protocols have been used in the community with various degree of success. This manuscript described a standardised protocol in detail which should be helpful for groups that are interested but not experienced in doing such work.

Clear description of the protocol, easy to follow. Should be very useful.

RESPONSE 5.1: We thank the reviewer for his/her positive assessment of our protocol.

Major Concerns:

Nil

Minor Concerns:

Line 64-66: Statement that HLA-typing is required for successful immunoprecipitation is overstated. Most people will just use W6/32 for HLA- class I as it is well documented and tested, easy to handle. Because many of the HLA alleles do not have antibodies that are commercially available in quantities large enough for such work, or the antibodies not tested for such work.

RESPONSE 5.2: We agree with the reviewer. We now mention in the revised version of the manuscript (Lines 389-392): ‘High-resolution HLA typing of uncharacterized human cell lines or biospecimens is not a necessity upon application of the W6/32 antibody but is nevertheless recommended for certain applications to facilitate data interpretation.’

Line 264: I was surprised HLA-A2 antibody BB7.2 was not tested in this assay. Considering HLA-A2 is the most widely distributed alleles in major human populations, including the antibody will certainly make the protocol more useful.

RESPONSE 5.3: In the current protocol, five commercially available antibodies were tested and validated for the generation of high quality immuno-peptidomic data. The BB7.2 has not been tested in the context of this protocol but we now refer to it in the revised version of the manuscript. We now mention (Line79): ‘Other anti-HLA antibodies are available (e.g. anti-HLA-A2 BB7.2) but were not tested here.’

List of Buffers

Beads coupling with antibody (Day 1)
Reactivating solution for CNBr-activated Sepharose: 1 mM HCL.
For 6 samples (15 mL per sample): 33.3 µL of HCl (6N) + 150 mL of H ₂ O
Antibody coupling buffer: 0.5 M NaCl, 0.1 M NaHCO₃, pH 8.3.
Weigh out 2.92 g of NaCl 0.84 g of NaHCO ₃ Add 100 mL of H ₂ O Mix and adjust pH with 10 N NaOH (16 µL)
Blocking solution: 0.2 M glycine.
0.15 g of glycine Add 10 mL of H ₂ O
Lysis buffer 2x: 1.0 % w/v CHAPS (Day 1)
0.1 g chaps/10 mL of PBS add protease inhibitors (1 pellet/10 ml buffer)

Elution of MHC-peptide complexes (Day 2)
Buffer C: Tris 20 mM, pH 8.0
157.6 g/mol x 20 x 10 ⁻³ mol/1000 mL x 1000 mL = 3.14 g Tris HCl in 1 L of H ₂ O pH 8.0: 650 µL of NaOH (10N)
Buffer A: 150 mM NaCl, 20 mM Tris, pH 8.0
58.44 g/mol x 150 x 10 ⁻³ mol/1000 mL x 600 mL = 5.26 g of NaCl in 600 mL of Buffer C
Buffer B: 400 mM NaCl, 20 mM Tris, pH 8.0
58.44 g/mol x 400 x 10 ⁻³ mol/1000 mL x 100 mL = 4.68 g of NaCl in 200 mL of Buffer C
1% TFA: 100 µL of TFA + 9.9 mL of H₂O for 10 mL
Desalting and elution of the MHC peptides (Day 2)
0.1% TFA: 10 µL of TFA + 9.99 mL of H ₂ O for 10 mL 80% ACN/0.1% TFA: 8 mL of ACN + 10 µL of TFA + 1.99 mL of H ₂ O for 10 mL 28% ACN/0.1% TFA: 2.8 mL of ACN + 10 µL of TFA + 7.2 mL of H ₂ O for 10 mL

FIGURE 4

MHCI_EL4_USER1_N1

NVLIFDLGGGTFDVSILTIDGIFEVK
GHTNNLRPKKKVK
HNHHTEKSLSHSPG
HQQLYWSHPRKFGQGS
KRAKEAAEQDVEKKK
HHTEKSLSHSPG
PPAENSSAPEAEQGGAE
HQQLYWSHPR
HTNNLRPKKKVK
NAIKNHWNSTM
RHSGPLRVAM
RIYSFGLGGNGQL
IIYEFESSTQM
ASYEFVQRL
APQGS LG EYLFERLTLKHD
TILEFSQNM
NMISVEHHF
AMAPRTL L L
NHHTEKSLSHSPG
SAIMNPASKVI
AMYIFLHTV
TTFSYVNNM
SMMDVDHQI
SMYVPGKL
GHQQLYWSHPR
AAFVFRKL
YAGSNFPEHI
VNVDHPINL
IAKLEKAKAKELATKLG
KQNEQMHAL
SSIHNPTGRSYTI
KSYSFIARM
ATYIFLQTF
KVLVFSQM
HGLYEKKKTS
VIYPFMQGL
TGPSNVDKL
KTFLFSATM
SMLQNPLGNVL
RSLGNDVKSYL
RQQQLQHRL
RQQQIQHRL

MHCI_EL4_USER1_N2

AGEKAPDTKEKKPAKKAGSD
AGEKAPDTKEKKPAKKAG
NVLIFDLGGGTFDVSILTIDGIFEVK
APQGS LG EYLFERLTLKHD
GHTNNLRPKKKVK
NAIKNHWNSTM
AVGKNKRLTKGGKKGAKKKVVD
HHTEKSLSHSPG
KRAKEAAEQDVEKKK
PPAENSSAPEAEQGGAE
HNHHTEKSLSHSPG
RHSGPLRVAM
SGYEFIHKL
TILEFSQNM
ASYEFVQRL
IIYEFESSTQM
NHHTEKSLSHSPG
TTFSYVNNM
HQQLYWSHPRKFGQGS
RIYSFGLGGNGQL
GHQQLYWSHPRKFGQGS
SMMDVDHQI
AMYIFLHTV
KTYEHFNAM
SSIHNPTGRSYTI
YAGSNFPEHI
TTFEHAHNM
ATYIFLQTF
AWIHAAHV
VNVDHPINL
AMAPRTL L L
VNFEFPEFQL
AIFKKTVM
KTFLFSATM
STYKFFEY
YQFDKVGILTL
VIYPFMQGL
SMVRFHKSAGL
TGPSNVDKL
AQYGNILKHVM
SAYNYAEQTM
SMYVPGKL

AQYGNILKHVM
RVYYFNHI
AQNDIEHLF
ASYTFKATV
KLHDVEHVL
SSLSNPIANTM
VAVDFGNYHL
KVYNYNHL
YQFDKVGILTL
AGVRNPQQHL
GHQQLYWSHPRKFGQGS
SGYKFFSL
HQQLYWSHP
KQMEDGHTL
SGYEFIHKL
VNVVFIGHV
QQYSFINQM
VNFPFLVKL
SSIQNGKYTL
KIFEFKETL
STYKFFEVL
RNFVFHTL
VNMVPFPRL
HRQQASSSRSTRP
AWIHAAHV
VIVRFLTVM
EDHNPPQL
GSLSNHTL
QQLDVEHNL
NTYNYKSTF
SSYKFNL
VSVEYTEKM
ELFPVFTQL
SVYKFFDL
KTVVNKDVF
ATYSYKEAL
SVYVYKVL
TAVVNRVFDKL
VNFVHTNL
TTFEHAHNM
IGLDYSSLYM
NSIRNLDTI
VNLKKKSYL
SAPENAVRM
KVFDFAEEV
EQVALVHRL

KLHDVEHVL
KSYSFIARM
SSIQNGKYTL
VSKHRAQVIYTRNTKGGDAPAAGEDA
AQILNQVMM
TAVVNRVFDKL
KQNEQMHAL
SGYKFGVL
AGVRNPQQHL
IAKLEKAKAKELATKLG
KVLVFSQM
AAFVFRKL
VNFPFLVKL
SVYKFFDL
GVVFPYFPRL
KVYNYNHL
KTVVNKDVF
KTGNKIRYNSKR
AQNDIEHLF
SSYKFNL
MSFQFAHL
RNYEYCRL
SAPENAVRM
NVFQYLTRL
SGYKFFSL
KQMEDGHTL
ELFPVFTQL
QQYSFINQM
SQYEFENYM
SNVKHVINF
VVFVFKTLL
TQNVNQAKM
VAYWRQAGL
NSIRNLDTI
VIVRFLTVM
TNQDFIQRL
QQLDVEHNL
QVTQPTVGMNFKTPRGAV
SVMENSKVLGEAM
VAVDFGNYHL
IAFRFLSYV
RSPENPPSKEL
SGYQYKRL
LSYTRFSL
TFGKKKGP
SIWLFQANL

SLGKNPTDAYL
VAFAYKNV
TAFKFKAL
LIYKFLNV
AQHQQVRQI
MSFQFAHL
VAFDFYHKASRL
SGYKFGVL
VNMEKYPDL
TTVTNPEPM
HQLPLPHNV
SGYIYHKL
NRRFVNVPVTFGKKKGPNANS
SSYTFPKMM
TGVINAPETI
SALQNAESDRL
AYFTHSNL
SVMENSKVLGEAM
AIFKKTVAM
SSYTFPKM
TNQDFIQRL
SNVKHVINF
KAPEYLHRF
VNQKFNNL
KIYQWINEL
SQYEFENYM
SIVQFYVM
SAPRNFVENF
RNYEYLIRL
RQLAKIHAI
VNFEFPEFQL
RIADFGAAARL
TNYRFKNL
QQNNVEHKV
QLDVEHNLF
VAFDFTKV
GHQQLYWSHP
ATYTFIQQL
YSVANHNSFL
VSYPHLVLL
YGYSNRVVDLM
TALEHQEYI
AQFKFTVL
IGLAYVNHL
RQIKNFHEL
VNYDFGHMHV

HQLQERHQL
RQQQLQHRL
RQQQIQHRL
KAIETVHNL
VAFAYKNV
KKAAGAGKVTKSAQKAQKAK
ATYSYKEAL
GSLSNHTEL
AYFTHSNL
ATYTFIQQL
RNYEYLIRL
VIFDFMDTL
TALEHQEYI
RQLAKIHAI
VAYKFPELL
NSPANNIVM
SIFEHKIVF
KTYQFLNDI
GAPQGSLSGEYLFERLTLKHD
SHYEFHNI
QQNNVEHKV
AQHQQVRQI
VGFTFPNRL
KIFEFKETL
VSVEYTEKM
VDYDFSYPHQM
KIYQWINEL
KHYDFSTRKC
QIYDIFQKL
SAPRNFVENF
IGVDFTVRSL
TAFKFKAL
SVLANYFVFM
VVFQFQHI
SNYHFYSSI
HHTKSLSHSPGK
SSYAYTKV
LIYKFLNV
SAIMNPASKVI
VSYKYSKV
AAITNKYQL
HQLPLPHNV
SGYIYHKL
KAPEYLHRF
SVYVYKVL
AMYVHAYTL

KTYEHFNAM
SHYEFHNI
QQYVFINQM
RELFPVFTQL
MSYLFRNI
LVYKFMNL
SGYKYVGM
TGFDKTKLESM
IGVDFTVRSL
LGLAPKHVIVL
RLPATIARIPPV
VAYWRQAGL
FAYEGRDYI
VDYDFSYPHQM
HQLQERHQL
IAYKFGKTV
SSYVHSNL
LSYTRFSL
VNVSHKEYL
RQQTYFHRL
IGPTYQQRL
SAYNYAEQTM
RVLIFSQM
RVLLFSQM
SSYAYTKV
VFYAVKVL
AAITNKYQL
LSYSYQSRF
VAYKFPELL
SSYQHTSV
GVVFPYFPRL
IDFPEFLT
LGYKYVGM
SQFKYALV
AQQVQIHQI
INFDFPKL
KAIETVHNL
NTYKYAKI
VDHNIADYM
SIFEHKIVF
GANVNHTTV
KLNPYAKTMR
AALNNHVEV
SMVQNRVFL
FQIVNPHLL
GQVVIIHML

SGYKYVGM
AALDFKNV
VVYIYKEHF
MSYLFRNI
NVWRFPYL
VVYDLSIRGF
KAYSFKEQI
RELFPVFTQL
GVCTNIIHM
VFPYFPRL
NMISVEHHF
AGLTHLITM
AGLTHIITM
SAFEHTQM
SSYVHSNL
SLGKNPTDAYL
SIYEKLIQF
SSYTFPKMM
VIMKLPQL
KALDYIHHM
SYKYSKV
NTYNYKSTF
RQIKNFHEL
AAYKFGVA
VAYKFPEL
AALNNHVEV
SNWWFVAHL
VGPDFGTTKL
GMLDTHHKL
VSYPHLVLL
SSFHYSGL
SAIFNFQSL
RAYLFAHV
AAVGNCAEHM
AQFKFTVL
VDGDNHVM
FNVDRHVGM
TGVINAPETI
FQIVNPHLL
VNFVHTNL
YGYSNRVVDLM
LRELFPVFTQL
INFDFPKL
RSLSYSEILRL
KVFEYHNV
QALKYFNL

VSLLNPPETL
KALINADEL
RAYLFAHV
VAFDRHLYV
FAYRFSNL
HTYDFEKL
VVYIYKEHF
RNYNYRVV
NSPANNIVM
KTYQFLNDI
VSFTYRYL
TSVVFNKL
SAVKNDYEM
SALKTIHDL
KVFEYHNV
TTYKYEMI
RVMEYINRL
TQLIQTHVL
RSPENPPSKEL
QIYDIFQKL
ISYNFIEKL
QAFDFEFTHV
SGYQYKRL
KQLEVVHTL
VNVERVLNV
VQYKFSHL
SAIFNFQSL
VVFFFKTLL
ASVLNVNHI
SSLVNKEDVL
SIWLFQANL
VTYSFRQSF
TFGKKKGP
VVYDLSIRGF
SIYEKLIQF
AALDFKNV
ATLVFHNL
VVFPYFPRL
ALNDNFVKL
ESYSFEARM
HQQLYWSHPRK
VAYKFPEL
SNYHFYSSI
KIFVFQNQV
THIQKLIGV
KFLEQVHQL

GQNDIHHKV
LSYSYQSRF
QQYVFINQM
TSVVFNKL
TTYKYEMI
GKETKAADPPAENSSAPEAEQGGAE
GVRNPQQHL
SKYDFPKL
LGYKYVGM
VNLREYPSL
EQVALVHRL
SRYQFRNL
VNVSHKEYL
AQYKFIYV
VAYEYLCHL
PKFEVIDKPQS
FAYEGRDYI
SSMEKPPSL
LNYKFPGL
SMLQNPLGNVL
KNVLFSHL
VNYYFERNM
SSHKTFRIKR
VNQKFNNL
HTYDFEKL
SQAVNKQQI
SALQNAESDRL
LQYEFTKL
SIVQFYYM
VQYKFSHL
RIVELFRNL
YSVANHNSFL
GANVNHTTV
VAAANREVL
SQYLFPKL
VNVDYSKL
IDFPEFLTM
YMPQNPHII
VNMEKYPDL
YGYHFPEL
VNYDFGHMHV
SFYEHIITV
KQLEVVHTL
SAVKNDYEM
SSPHYTTL
VVYRYLYV

SQLVKADEM
LNYKFPGL
QTVENVEHL
LQYEFTKL
VITHFVHV
RTYTYEKL
VAAANREVL
AAVKFHNL
LRELFVFTQL
STFEFHSI
SVFAFGENKM
VVFQFQHI
SAIFNNVMTL
VGFRFPIL
TSVENHEFL
KNVLFSHL
NVWRFPYL
RIVELFRNL
AQYKFIYV
IFYVQKL
RSLSYSEILRL
VNYDFGHM
VDFVIPKEL
VAPDRFPTL
VGITYQHI
VG YQFRTSL
SALRFQAM
GVRNPQQHL
KAVENSSTAI
SNIHYHTL
QVFDAKNMM
KNLVNKEVM
SNYRFEGL
AMYVHAYTL
VGYRFVTAI
EDTDLGLYKV
ISYLYNKL
FSITDQQTL
VIFDFMDTL
STYLFRLM
KVLVFNFL
SQAVNKQQI
VGWKYQAV
IGYAFVHL
VSYKYSKV
FAVVNHQGT

VGFRFPIL
VAPFLRQEF
RAYEFAERC
VIWKYPTM
VG YQFRTSL
TGFDKTKLESM
SNIHYHTL
SNYKFFLL
FAVVNHQGT
AMMAKAEYL
KVLVFNFL
TLNDLIHNI
SSYQHTSV
TNYRFKNL
VSFTYRYL
AQQVQIHQI
SSYTFFKM
RDFNHINVEL
SAFTRVASM
KAVENSSTAI
HQLQNFNTL
STLYPLHVLF
VGITYQHI
KVLVFNHSL
ATLVFNHNL
IVYTFMTHF
VGYRFVTAI
RQILNADAM
VSLLNPPETL
RAIQNHSQTHL
AVLKYYKV
VALDFEQEM
KNLDWFPRM
VSQYYPKL
NTYKYAKI
AAVKFHNL
ESYSFEARM
SQFKYALV
VNVERVLNV
NSFRYNGL
AAPRPPPKPM
SGYSFTHI
STFTRQMGM
WIHAAHV
IGPTYQRL
EAIEVIHKL

VIMKLFPQL
SSPENKNWL
EAIEVIHKL
VALDFEQEM
SSYNYRVV
VNYYFERNM
SYKYSKV
LDHKFDLM
AAGTNKENL
KVLDVLHSL
DIERPTYTNL
VNAQFPRF
YAMIYRNL
VNIRFIGGL
ASIQNGKDSL
KAYSFKEQI
TSVQFMKL
LSLENGHTL
TLNDLIHNI
FGPVNHEEL
LVYQFKEM
ADFEIGHFL
VGPDFGTTKL
LHNHHTKSLSHSPG
IGPKNYEFL
VVFFFKTL
AMMAKAEYL
VNVDYSKL
SAVVDKDFL
VSTKFEHL
VMNYVEHDL
VNFKHEVSV
SSPQFVGNL
TSLIILHQL
YMPQNPHII
AAYGFRNI
TAPVYNQV
TNYNFQYI
SQYLFPKL
VGFTFPNRL
ALNTQIHDL
SAYQRGESL
AVLKYYKV
SNYNFEKPF
KIQSFINRM
FTYRYLAL

VGYRYETL
AFVRLPSL
KMLAAIHTF
VTYHGFPNL
SAVVDKDFL
KNLVNKEVM
SVFAFGENKM
SGYDFSRL
KSFEWLSQM
TSVQFMKL
AIYEFIHNF
SFVKGFL
SSVKFNPV
KNHKFTARF
SALRFQAM
QQLDVEHNLF
SNYLHRVV
AANRNNDAL
IMNHEKVNR
IAYKFGKTV
SALKYYQL
KGVYNKSTI
RGYIYWRL
VTDLRVTGM
QNNVEHKV
VMIQHVENL
TQLIQTHVL
FGKKKGP
FAYRFSNL
EDLDHTVSM
RSFANDDRHVM
IAYAFFHL
FGPVNHEEL
LVYKFMNL
YVLHNSNTM
SALKTIHDL
SVLNVLHSL
IGYAFVHL
ISFKFDHL
VNLKKKSYL
TTVTNPEPM
RLLQEAHDL
IAYEYLCHL
STYLFRLM
RCWQYRQL
QTYYRVSNM

SNYSYPQV
VNLREYPSL
VMIQHVENL
RGYIYWRL
ILMEHIHKL
SSVKFNPV
IVYTFMTHF
RLLQEAHDL
RNYQFDFL
SGYSFTHI
IAYAFFHL
QALKYFNL
EIIKDIHNL
AANRNNDAL
ISFEFRSL
GQIKEYHTL
STVVNADQI
SRYQFRNL
SQYVFTEM
QAPRYSSL
TVPELTQQM
VAPFLRQEF
VVYRYLYV
IAFRFLSYV
RDFNHINVEL
VIVPHIVNL
RIFQFQNF
AALENDKTI
HAIENIDTF
VADKFTEL
TQYIFTEKL
AAVQNPALTAL
AQYLFIQTF
AAMKNVTEL
VNRVFDKL
KGIGNKTEI
SQLNELHHL
SNVKYVML
QVYTFTERM
TSYRFLAL
VADKFSEL
FSGHNLEYL
IQWRFVNRI
DDFIHQHF
SLIILKQVM
YGYHFPEL

VVFFFCTL
ISYNFIEKL
QSFFFFTHL
RNFIFSRL
ISFEFRSL
EDTDLGLYKV
IFYVQKL
KVYMFKCV
QTVENVEHL
TNYNFQYI
SAIFNNVMTL
KALINADEL
RNFVFHTL
SSYNYRVV
SNYRFEGL
SQYVFTEM
AAGTNKENL
VNRVFDKL
ALNTQIHDL
VAPPYPHFF
SSPQFVGNL
SSPENKNWL
ANYQRDGPM
KVFDFAEEV
SQYRFTVSDL
KNVTFEHV
KIQSFINRM
RTYTYEKL
AALENDKTI
SGVSNPHVI
ISGVNGTHI
RIFQFQNF
VDFEEFVRM
RQNP HHVHEW
SSYSFRHL
KAFTHGVAM
SQLVKADEM
VADKFTEL
SSLLFVKL
VNVAKLRYM
VNAQFPRF
IQWRFVNRI
ASIQNGKDSL
ISYLYNKL
STFVYNM
NNVEHKV

EDVKMITGL
VRFKHRYL
RNFIFSRL
LSYTRFSLA
SGVSNPHVI
SAYEYIHAL
TQNVNQAKM
KNYDFAQVL
EAYRFTGL
QLNVVIHQL
FSEENHEPL
TSYRFTTEL
VQYLYRVF
SAYLFVKL
TSVRFTQL
VGYRYETL
RSPAFTSRL
HTEKSLSHSPG
SAVKNLQQL
SGVRFNNV
ERPTYTNL
TNYKFFML
EDLNTKYLEM
ISFKFDHL
FAIDDHDYL
ASLVNADKL
HQLQNFNTL
SNYLHRVV
YIMPKPARR
VGIENIHVM
AQLQNQQSF
QILSDFPKL
IGIENIHYL
KMLEVFHAI
SAFEHTQM
EDYKFHHTF
IIYEFVHI
RGLSRYPNL
YAPINANAI
QSFFFFTHL
HGFREGTTP
STLYPLHVLF
KALDYIHHM
LSMRNTSVM
EQSDLVHRI
AIITGFRNV

IGIENIHYL
KSLVNBKGT
SGVRFNNV
AAYGFRNI
KNLNYLHL
EDHNPPQL
LQYEFTHL
IGLAYVNHL
KRLNFHLYM
DDFIHQHF
TAPVYNQV
VAFDFTKV
EDYKLLENM
GVLRFVNL
VIVPHIVNL
SNYQYLLHL
HQQLYWSHP
AVVAFVMKM
SCFEYQKL
RVMEYINRL
ASVLNVNHI
SNYSYPQV
KVYTFNSV
EQLHGSHEL
KTYQVAHM
KIFKKEKEM
TSVRFTQL
ADFEIGHFL
TAYEFAKL
EQYKFYSV
TAYAFHFL
RGLSRYPNL
HGFREGTTP
VADKFSEL
AAPINTQGL
RVYNYRKL
VSTKFEHL
YAMIYRNL
RVLLFSQM
RVLIFSQM
ALNDNFVKL
SAYQRGESL
HTEKSLSHSPG
STFEFHSI
VNVVFIGHV
TNISFTNM

SAFTRVASM
AAPINTQGL
AALQNYNNEL
STFVYNSM
QSIAFISRL
SFYEHITV
VNVAKLRYM
IQAENAEFM
VDFEEFVRM
ISGVNGTHI
VSYQHAFL
VNYRHLALL
KMLAAIHTF
SAYRFSGV
VTYHGFPNL
KNYDFAQV
KVYTFNSV
VDADFELHNF
VIWKYPTM
AHYTYNNL
SHIGKL RDFL
KVVKFSYM
VSYLFSHV
ATQVYPKL
TNYRFPSSL
QAPQNKITV
KNIRFPLM
VNFEFPEF
QAYAF LQYL
PKFEVIDKPQS
TQVIEPHDI
QSYEFFHL
KSITFSKL
VSIQFYHL
VTFERVEQM
MAPQNLSTF
TNISFTNM
KAISNSHYVL
VINFD FPKL
SHYDFGLRAL
RDVIMREF
TSIAFKNI
SMLYPLSHGF
SGYDFSRL
STLTYSRM
SSVRFSYM

QIIAFFAHL
TSPINPQHM
QAYAF LQYL
SYKFNHL
SNVKYVML
VAPDRFPTL
SIAAFIQRL
SSVRFSYM
ATQVYPKL
VGVTYRTL
TSLKYLEM
STFSFTKV
QVYTFTERM
IVHEPGPVM
VICSFLHYM
VFYAVKVL
TSIAFKNI
TGYNFQRV
RLLEEIHAM
QAPRYSSL
ICFKFDHL
VGLKFVFL
EDYKFHHTF
SQYRFEHL
VNYRHLALL
VLKYYKV
HSALIYSNL
TQVIEPHDI
ISGVNRY YV
SSVKFAEM
VNFKHEVSV
SQPVNPHSL
SSVSNK TTL
AIYKKSQHM
STLIYRNM
LSYTRFSLA
QSVAFTKL
LVYQFKEM
FSGHNLEYL
STYSHSAL
ILMEHIHKL
SGYHYVCL
EQSDLVHRI
HGLYEKKKTS
SAYEYIHAL
KSITFSKL

LQYEFTHL
TAYAFHFL
QQFIYEKL
KELQTLHNL
SIAAFIQRL
VTDLRVTGM
QQQQQLHSL
SQVENPTASHV
KLTGIKHEL
AQYRFIYM
VNFVFETHDL
SVVRYVQL
VAYRYEVL
IQWAFKNL
KSLVKNKGT
SSLLFVKL
QNNVEHKV
STLIYRNM
IIFNFEKAYF
EDLVFPSEI
YVLHNSNTM
KNVTFEHV
SVLNLVHSL
IIAFFAHL
TQNGILHML
SVIKFENL
STFSFTKV
TQGQQPPQR
GGIQNVGHI
VFRELPSL
MAYMASKE
VDFDDFVEL
ISGVNRYV
PENAVRM
EDAQLPLYM
NNVEHKV
SKYDFPKL
GVLRFVNL
HTYVHATL
KNLNYLHL
AAPFDTVHI
TNANFTLVQL
ISFEFRSLL
VGLINKDSV
VMYRVIQV
KVDFDFAGEEVRV

QAFDFEFTHV
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FIGURES 4,5 AND SUPPLEMENTARY DA

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GGVVM(+15.99)YHM(+15.99)
AVVLNATWL
RVYEWFG
NDYEHKEAM
ISPSYKTL
ISLDYHQL
ESPLFNNV
SILQYSNV
SMVTMAHL
STLLFAHI
ISHVIVDEI
RAPQFINL
TNINFPNL
RNFSFISL
SWIEVQFL
FPYFPRL
QVYGFLEV
ETYKYFSL
SFRLFSSI
TNYRFKNLF
IFRYLTNL
SSLLFVKL
RTYSFLNLL
EDVLIQKL
VDTDLQHL
INTAYARL
RSFDFIHL
AGHRNREVL

VNTIFTVV
VIFIFTKV
SRVSFTSL
VSPTGTHTL
QRYLHENL
TAHKNGSTL
NQADTTTHPL
NYRHLAL
VNYLHRNV
FGIDNFEFI
FAIQNPTLI
VLLSTIHEL
VSWLYLSRL
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YRFFSRL
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RGYEFLGV
PKTDHRLGKVGR
INIEMYQRL
GAVTNVKVI
SGPQFVQL
GPKNKTSI
SSVLNLTEL
KAAGFTGM(+15.99)TCSVFQ(+.98)K
SALVFTRL
ISVEHHF
AGYSFEKL
VNIQYLDL
KGYIFLTL
SAPKYIDYL
TNISFTNM
APEFRRL
KELQTLHNL
RVVAFAAV
NIFVFKEL
NLFVFKEL
TSPTYRSL
RIILFGSL
SALIYSNL
DSPEFEKL
QALEQNHSL

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KSLENILTL
SNIAYPKL
SALEVAHRL
VNVAKLRYM(+15.99)
RDFTVSAM(+15.99)
EDHVLPEL
VQYEM(+15.99)RTL
ILVPN(+.98)GFSKL
VAPLYKRL
APENAVRM
YAM(+15.99)IYRNL
QDFLFSQL
TQLSSKHEL
SAPIYKRI
QLLDLM(+15.99)HTL
FAPIYADL
TNLIYQQV
AQYDRQIRL
TLSSSTQASLEIDSLFEGIDFY
AQ(+.98)YKFIYV
KTYHYLYL
KGLDFALL
ETPVYANL
EDFDIHEL
AQYRLVTEI
GYIYHKL
QSPRYTRL
EDFEAPFL
IAFIFNNL
TNYIFDSL
QMKFRLL
DVPKWISI
KSYQVAPL
SSINFLTRV
ASLHNQITA
ESVEFQNL
AVIHFAGL

ITKFDHL
EDVKLLQF
KIIDFGFARL
SGIKNPVSV
TALNFLHL
VQIKNDVFI
AGVTFIGVHL
EIVTFERL
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EQLEHVREM
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KNLRYQLL
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KGLRFIQL
KSYSYPSL
RNTIYAAL
SAMVFSAM(+15.99)
RALENPDTA
EAPEFIEM
SLFKEGKER
SM(+15.99)IRLSESM(+15.99)
EAIKNHEEL
VFVRVIQL
EQSPLSHDL
VALENANAV
IQLPNRHDF
KSMENLIEL
VDFDDFVEL
STLRLLTTI
KAYRFLFGF
SYSFRHL
KSLQYLN

RIFQFQN(+.98)F
AVYIHALL
IVLTFRQL
SILRYLARI
FVQRNSTEL
RGPTYVNM(+15.99)
LSAKNKDYM
LRELPVFTQL
SNLLYVNV
TILEFAQL
IQ(+.98)KTPQIQVYSRHPPE
SM(+15.99)IRLSESM
PCIPMFD
GAVQNIAHL
IIPMFSNL

FIGURE 4

MHCI_JY_USER1_N1

GILGYTEHQVVSSDFNSDTHSSTFDAGAGIALNDHFVK

SDYNIQKESTLHLVLR

DSFKLQTKEFQVLKSLG

KDYIALNEDLRSWTA

KDYLALNEDLRSWTA

GKDYIALNEDLRSWTA

GKDYLALNEDLRSWTA

APRPASGPIRPIVR

APRPASGPIRPIV

RTPKIQVYSRHPAEN

GSHSMRYFYTSVSR

GSHSMRYFFTSVSR

TPKIQVYSRHPAEN

RPDGEKKAYVRL

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KVWDLFPEADKV
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ALMEQVAHQTI
RMFGGPGTASRPSSS
ATPLLMQALPMGALPQ
SPASTKTGQAGSL
KMADEDALRKI
RPAGEPYNRCTL
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AASKERSGVSL

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RPREAEVRFL
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GPNPKSSRTTL
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ALFPHLLQPVL
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YPREAKVQWKVDN
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HVYDGKFLARV
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KLHDVELHQV
KPASTSGKSEL
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ILMEHIHKL
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IQDNHDGTYTV
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FPMEIRQYL
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RPYPVMRKI
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VPRTAENFRAL
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MLPPPPLTA

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SDSAQGSVDVSLTA
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APSQQRQQI
YLFDVQRNNIAM
YLEELPEKLL
SYELPDGQVITIGNER
SPRNLQEKHKSL
KMQEHSQV
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ALIDEGETDWKL
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APAPPPEEV
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KVRPSTGNSA
LPHAPGVQM
TLLDPNEKYLL
SLSEKQYFL
GPLPPHLAL
LVMAPRTVL
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GVRPPAPSL
SVRSTTRQM
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RPYAPINANAI
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KLNPQQFEV
ALVDQRELYL
ALYDNVEKL
ALDESHNQNL
APNYRLKSL
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VPRPPQTSL
LLLDVPTAAV
VLLGHIFYV
GPQPRLSAV
NMVAKVDEV
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SLLPEGPPAI
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FLLPKVQSIQL
SPNAEIHIL
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VMAPRTVLL
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RLIGDAAKNQV
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SLMSHAIEL
SPETRENAL
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SPSSVTGNAL
VLMTEDIKL
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KPSVHSRQL

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FIGURES 4,5 AND SUPPLEMENTARY DATA S2

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KPD LRRDVYL
VLTNKLLTV

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EPRGQQEVL
YMNHIMVSV
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PQPAKPRL
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FIGURE 5 AND SUPPLEMENTARY DATA S3
MHC CLASS II FROM JY - L243 ANTIBODY

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FIGURE 5 AND SUPPLEMENTARY DATA S4

MHC CLASS II FROM MOUSE A20 CELLS - M5 ANTIBODY

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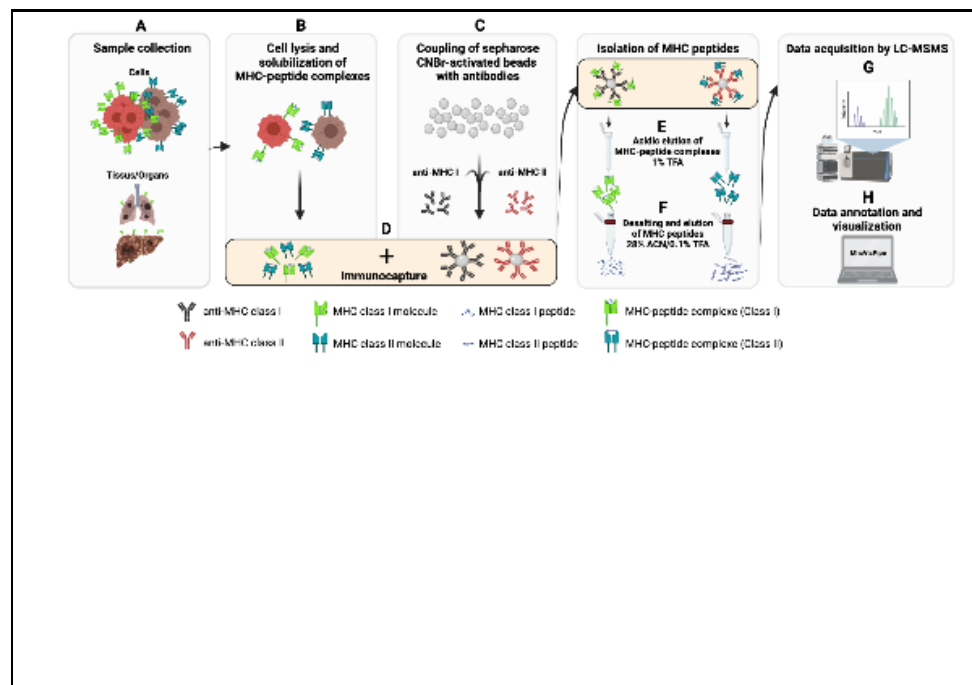
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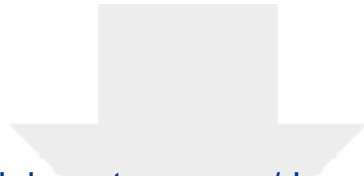
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