



**Supplemental Figure 3: Application of combined spectral libraries for matching immunopeptidomics DIA data.**

**(A)** DIA data of JY and 0D5P samples were matched against the JY+0D5P combined library. The number of peptides identified in each of the DIA measurements and the number of peptides included in the JY+0D5P library are reported. Deconvolution of the consensus binding motifs of 0D5P (**B**) and JY (**C**) DIA immunopeptidomics samples with MixMHCP 2.1 and manual annotation of motifs. The number of peptides and the HLA restriction assigned to each motif are reported. **(D)** DIA data of RA957 and JY samples were matched against the RA957+JY combined library. The number of identified peptides is provided like in A. Deconvolution of the consensus binding motifs of JY (**E**) and RA957 (**F**) DIA immunopeptidomics samples. **(G)** DIA data of 0D5P and RA957 samples were matched against the 0D5P+RA957 combined library. The number of identified peptides is provided like in A. Deconvolution of the consensus binding motifs of 0D5P (**H**) and RA957 (**I**) DIA immunopeptidomics samples.