

Note to the HLA Epitope Registry users

Users will see several changes that have been made to the HLA-A,B,C Epitope Registry:

1. Following a reevaluation of the antibody reactivity reports, antibody-verified designations have been removed for three eplets: 66NV, 66IF (pair only, 66IF+163TEW), 113H.
2. Based on new information, two eplets were assigned antibody-verified status: 45KE, 73TVS.
3. The polymorphic residue descriptions of some eplets have changed. The new descriptions include only amino acid residues that are reflected in the name of the eplet. In most cases, the additional residues included in the descriptions were monomorphic for one or more class I loci. For example, the eplet 65RK was originally described as 65R-66K-67V. The new description is simply 65R-66K since all HLA-ABC alleles in the registry database that share 65R and 66K also share 67V.
4. The arbitrary antibody-verified assignments of “Provisional” and “Confirmed” have been removed and replaced with the word “Yes” in the Antibody Reactivity column on the website. Clicking on the “Yes” link displays the antibody reactivity report for the selected eplet.
5. The antibody reports now also contain descriptions for the eplet “pairs”, which previously were listed separately under the associated single eplet. The pairs, which consist of a single eplet in combination with a second polymorphic amino acid configuration, can explain the reactivity of some antibodies that react only with a subgroup of HLA alleles that share an eplet. Clicking on the “Yes” link in the Antibody Reactivity column will show first the antibody reactivity report for the single eplet (if the single eplet has been verified), followed by descriptions for any eplet pairs. For example, clicking on “Yes” for eplet 69AA will show the report for the single eplet 69AA, as well as information for the pairs 69AA+65QI and 69AA+76E. Users will notice that “Yes” now appears for some previously non-verified eplets for which existed antibody-verified eplet pairs; the antibody reports for these eplets will display only information for the eplet pair. For example, 65RNA has not been antibody verified, but an eplet pair, 65RNA+80I, has been. Clicking on the “Yes” link for 65RNA shows the reactivity report for 65RNA+80I.
6. The number of non-antibody-verified eplets has been reduced from 204 to 151. A review of all the eplets revealed that many were defined with amino acid residues in overlapping sequence positions, and that in many cases the same polymorphic amino acid residue was in combination with one or more residues that are monomorphic at other class I loci. Redundant eplets were combined into one that is described by the specific polymorphic residue. For example, 62REN, 62RTN, 63EN, 65QNR and 66NAQ were all combined into the single eplet 66N since the other residues in the eplet descriptions (62R, 63E, 64T, 65Q, 69A, 69R, 70Q) are monomorphic for at least one class I locus.

7. Structural epitope information is now displayed for many eplets that are shared by groups of alleles. Clicking on the “View” link in the Struct Epitope column shows a list of polymorphic amino acid residues within a 15 Ångstrom radius of the residue(s) defining the eplet for common HLA alleles that share the eplet. This information may help users to understand and explain why some antibodies react with the immunizing eplet-carrying allele but only with a subgroup of the other eplet-carrying alleles in the screening panel.

8. The registry website now shows ElliPro scores for eplets that have not been antibody-verified. This information appears in a new column next to the eplet name. The following ranges were used for the score assignments: Very Low (ElliPro score <0.150), Low (0.150 – 0.250), Intermediate (0.251-0.399), High (\geq 0.400).