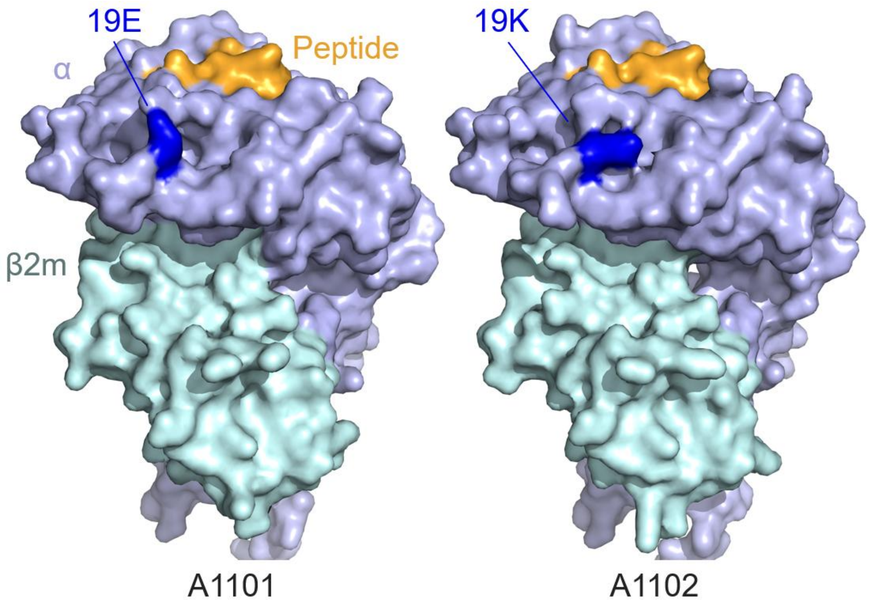
HLA-A*11:02-Specific Antibodies Selectively Bind A*11:02-Positive Cells With Potential Complement Mediated Assay Interference and Implications for Epitope Spreading

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BACKGROUND

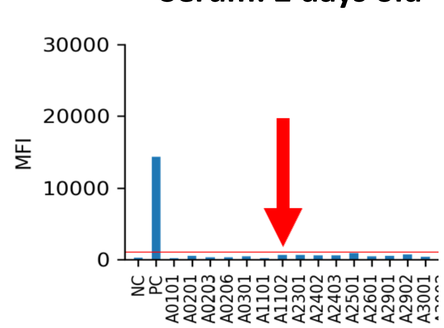
- Antibodies binding to proteins encoded by HLA-A*11:02 but not A*11:01 are often considered to be false positive reactivity
- A*11:01 and A*11:02 proteins have a single amino acid difference at position 19 (E vs K)

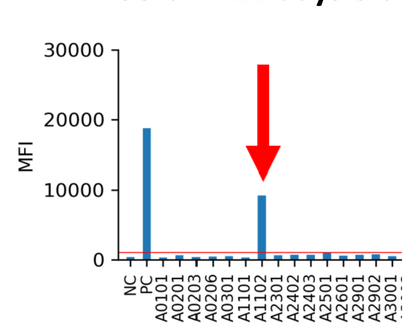


METHODS

- LABScreen Single Antigen HLA Class I assays were used for detecting IgM and IgG antibodies.
- C1qScreen assays were used to detect complement binding.
- Adsorption and elution studies were used to detect binding to A*11:02-positive cells.

RESULTS





Assay	Result
IgM Single Antigen	Negative
C1qScreen	Strong Positive Signal (~30,000 MFI)
Adsorption and elution from cells engineered to express A*11:02	Eluate Positive
Adsorption and elution from cells not expressing A*11:02	Eluate Negative

CONCLUSIONS AND FUTURE DIRECTIONS

- Serum with no detectable HLA antibodies in a LABScreen Single Antigen HLA Class I assay could contain antibodies capable of binding to A*11:02 proteins.
- Strong signals in the C1qScreen assay suggest that complement could be interfering with detection of the A*11:02 antibodies.
- Adsorption and elution studies suggest that these antibodies can bind to A*11:02-positive cells.
- Future directions: characterization of the A*11:02 epitope and prevalence of A*11:02 antibodies.

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