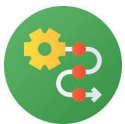


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AIM

EDTA is used in the single antigen beads-based antibody test to treat sera and eliminate the “prozone” effect. EDTA blocks complement activation but not necessarily C1q binding. The Luminex Single Antigen C1q Assay, which detects C1q binding, does not require EDTA treatment. Therefore, a separate sample without EDTA is typically needed for C1q testing. To streamline the workflow, we investigated whether C1q testing could be performed on EDTA-treated samples.



METHODS

HLA Class I and Class II Single Antigen C1Q testing were performed on samples for two patients. One set of samples was performed on sera without EDTA treatment following the manufacturer’s instructions. Another set was performed on sera that had been used for the single antigen test and were treated with EDTA.



RESULTS

In Patient #1, strong C1q antibodies were detected, and EDTA treatment did not reduce the MFI of C1q binding antibodies. In patient #2, EDTA treatment slightly reduced the MFI of C1q antibodies (Figure 1).



CONCLUSION

EDTA treatment does not abolish C1q binding. Further studies are needed to determine if EDTA-treated sera can be used for C1q testing.

PATIENT #1 65858

EDTA and Heat Treated



Heat Treated Only



PATIENT #2 68859

EDTA and Heat Treated



Heat Treated Only

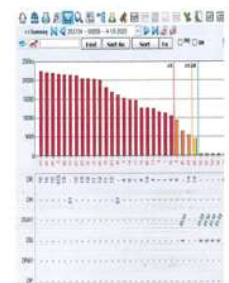


Figure 1

