The antibody reagents (anti IgG, IgM, IgA, etc.) are used at a selected dilution for optimal sensitivity and class specificity.

HSC.31178 Positive Crossmatch Results Cut-off **Phase II**

The cut-off for positive crossmatch results is determined by testing an appropriate number of sera from non-alloimmunized individuals and established for all pertinent target cells (T-cells, B-cells, etc.).

Evidence of Compliance:

✓ Records for the validation of the positive cut-off

REFERENCES

1) Organ Procurement and Transplantation Network (OPTN) Bylaws. Appendix C. Membership Requirements for Histocompatibility Laboratories. US Department of Health and Human Services. December 5, 2022.

HSC.31552 HLA Class II Antibody Procedure **Phase II**

The procedure for HLA Class II antibodies readily separates Class I from Class II specificity.

HLA ANTIBODY SCREENING

Inspector Instructions:

READ	• Sampling of HLA antibody screening policies and procedures, including protocol for screening for each organ transplanted or hematopoietic progenitor cell recipient and the frequency of such screening • Agreement for reflex testing using more sensitive screening method, if applicable • Sampling of antibody identification QC records • Sampling of initial and subsequent recipient sera screening records
ASK	• What is your laboratory's course of action for antibody identification/crossmatching for high risk patients? • How does the laboratory determine cutoffs for identification of HLA antibody based on the clinical programs supported? • How does the laboratory determine the assignment of unacceptable antigens for organ transplantation?

HSC.32487 Immunizing Event **Phase II**

There is a system to record any potential immunizing event that could cause sensitization in a patient.

NOTE: There must be a policy that encourages timely blood sample collection at 14 days after the potential immunizing event in a patient. This new sample should be available for use in antibody screening and crossmatch studies.

REFERENCES

1) Department of Health and Human Services, Centers for Medicare and Medicaid Services. Clinical laboratory improvement amendments of 1988; final rule. *Fed Register.* 2023(Dec 28):[42CFR493.1278(c)].
2) Organ Procurement and Transplantation Network (OPTN) Bylaws. Appendix C. Membership Requirements for Histocompatibility Laboratories. US Department of Health and Human Services. December 5, 2022.

HSC.32674 HLA Antibody Detection **Phase II**

The laboratory has the capability to detect HLA antibodies with sufficient sensitivity and to distinguish HLA antibodies from IgM autoantibodies or non-HLA antibodies.

NOTE: Methods to detect HLA antibodies must be more sensitive than the basic/NIH technique. There must be written procedures to differentiate HLA antibodies from autoantibodies.

REFERENCES
1) Foundation for the Accreditation of Cellular Therapy (FACT) and Joint Accreditation Committee ISCT and EBMT (JACIE). FACT-JACIE International Standards for Hematopoietic Cellular Therapy Product Collection, Processing, and Administration. 8th Edition, December 14, 2021.
2) Department of Health and Human Services, Centers for Medicare and Medicaid Services. Clinical laboratory improvement amendments of 1988; final rule. *Fed Register*. 2023(Dec 28): [42CFR1278(d)(1)].
3) Department of Health and Human Services, Centers for Medicare and Medicaid Services. Clinical laboratory improvement amendments of 1988; final rule. *Fed Register*. 2023(Dec 28): [42CFR1278(e)(1)].

HSC.32861 Antigenic Diversity and Targets — Phase II

There is sufficient antigenic diversity (individual antigens and/or crossreactive groups) for HLA Class I and II, and sufficient numbers of antigenic targets for optimal HLA antibody detection and specificity determination.

NOTE: There must be sufficient diversity for Class I and II HLA antigens and cross reactive groups, as well as sufficient numbers of well-characterized panel cells or HLA-purified protein targets for antibody detection and specificity determinations, and strength/avidity of the antibody when applicable.

Evidence of Compliance:
- ✓ Listing of antigenic targets for each panel cell

HSC.33048 Antibody Detection and Specificity QC — Phase II

For HLA antibody detection and specificity determinations, positive and negative controls are used, and sera tested undiluted and diluted when appropriate.

Evidence of Compliance:
- ✓ Records of QC for antibody detection and identification

HSC.33235 Target Source for Class I/II Antibody Determination — Phase II

There are records that the appropriate target sources are used for separate HLA Class I and II antibody determination including appropriate methods to distinguish antibody mixtures.

NOTE: There must be records that the appropriate target sources are used for HLA Class I and II antibody determination. The targets for HLA Class I antibody determination should be blood, spleen, lymph nodes, and cell lines. In addition, well-characterized purified HLA protein targets may also be used. Class II antibodies are best detected utilizing B-lymphocytes, B-lymphoblastoid cell lines, CLL cells or specific Class II purified HLA protein. Mixtures must be defined by methods shown to distinguish Class I from Class II reactivity.

Evidence of Compliance:
- ✓ Records of target sources used for HLA Class I/II antibody determination and to differentiate antibody mixtures

HSC.33422 Recipient Sera Screening — Phase II

All recipient sera are screened for HLA antibodies including, at minimum, an initial sample at the time of HLA typing, after sensitizing events and upon request.