

## Tissue Immunology Testing for Renal Transplants

TEST	RECIPIENT/PATIENT	DONOR
Blood group ABO	Kshs. 640.00	Kshs. 640.00
HLA CLASS I (EDTA/ACD blood)	Kshs. 6,180.00	Kshs. 6,180.00
HLA CLASS II (EDTA/ACD blood)	Kshs. 19,900.00	Kshs. 19,900.00
Lymphocytotoxic Antibodies		
(Recipient serum/ Donor ACD blood)	Kshs. 2,360.00	
<b>TOTAL</b>	<b>Kshs. 55,800.00</b>	

HLA Class I Antibody Identification (Luminex) is advocated especially for patients who have had previous transfusion or pregnancy. Price Ksh. 23,000.00

Cytotoxic antibody screening may be undertaken instead of HLA Class I Antibody Identification but this only detects complements fixing antibodies. Price: Ksh. 4,500.00

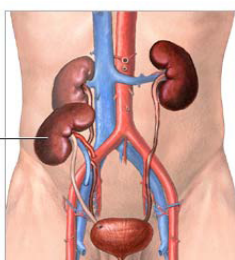


We are pleased to inform our esteemed doctors/clients and customers that tissue transplant immunology tests are available through Lancet Kenya at competitive pricing and turn-around-time (TAT) with interpretative reports for each case.

The minimum requirements for a live related renal transplant are Blood Group compatibility (ABO group) and absence of recipient HLA antibodies to the donor's HLA type (lymphocytotoxic cross-matching). The suggested minimum tests for renal transplantation should include ABO blood group, HLA Class I serology, HLA Class II DNA typing and lymphocytotoxic cross-match which for a recipient and donor costs a total of Kshs 55,800 at Lancet Kenya.

Additional antibody detection tests are also available, which are advocated particularly for previously transfused patients and multigravida (for complement and non-complement dependent antibodies).

The turn-around-time for tissue immunology is 2nd week from receipt of samples at the Lancet Kenya premises.



Transplanted kidney

ADAM

### Summary Information on Tissue Immunology for Renal Transplants Information Obtained from the Laboratory for Tissue Immunology – NHLs South Africa

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HLA Typing Class I Serology* Price Kshs. 6180 per person TAT: 2nd week	Alternative name: HLA- Class I tissue typing Test details: This is a complement-dependant lymphocytotoxic assay. The patient's separated T-Cells are incubated with a panel of 60-72 different HLA typing reagents to which complement is added. If antibody-antigen complexes form the complement lyses the lymphocyte. The tests are visualized by adding a vital stain and read microscopically. From the positive and negative reactions observed a phenotype can be deduced.
HLA Typing DNA Class II* Price Kshs. 19900 per person TAT: 2nd week	Alternative name: HLA-DRB1* and / or HLA-DQB1* typing. Test details: This assay utilises extracted patient's DNA that is subjected to the PCR using sequence specific primers. A positive reaction is indicated by detection of specific amplification of the test DNA by electrophoresis or Luminex instrumentation (a specialized twin laser fluoro-analyser similar in operation to a flow cytometer). Sample: whole blood in EDTA (recipient and donor)
Lymphocytotoxic Cross-match* Price Kshs. 2360 for recipient and donor samples TAT: 2nd week	Alternative name: HLA Lymphocytotoxic T-cell Cross-match Test details: This is a complement-dependant cytotoxic assay involving the incubation of the patient's serum with the donor's lymphocytes. The principle of the test is the same as for detecting Lymphocytotoxic Antibodies (see below). The cross-match indicates if the recipient has HLA antibodies against the donor's lymphocytes. Sample: Recipient –whole blood in ACD; Donor - serum Drawbacks: This assay only detects complement dependant antibodies and a negative cross-match is not always an indicator for a successful transplant.
Cytotoxic Antibodies Screening Price Kshs. 4,500 recipient TAT: 2nd week	Alternative name: HLA Lymphocytotoxic Antibody Screening and Identification. Test details: This is a Complement -dependant cytotoxic assay involving incubation of the patient's serum with a panel of at least 50 unique donor lymphocyte samples. Rabbit complement is added to the test, which during additional incubation in the presence of antigen-antibody complexes causes lysis of the test lymphocytes. The reactions are visualized by adding a vital stain and reading the tests microscopically. Drawbacks: This test only detects complement fixing antibodies. A cryo-preserved panel of cells are usually used and depending on the storage conditions high background readings are possible making the test difficult to interpret. Sample: Recipient - serum
HLA-Class I Antibody Identification Price Kshs. 23,000 recipient TAT: 2nd week	Alternative name: HLA-Class I antibody identification (Luminex) Test details: This assay uses a panel of 50 beads, each labelled with a unique HLA-Class I phenotype. The patient's serum is incubated with the beads, excessive / unattached antibodies are removed by washing and the reactions are visualised by adding a fluorescence conjugate before submitting the sample to a Luminex instrument for analysis. Each set of beads emit a specific fluorescence wavelength when excited by a laser. Positive reactions are characterised by the addition of a fluorescence label of the antigen - antibody complex. This test assigns a HLA- Class I specificity to the antibody detected. Advantages over lymphocytotoxic tests: These antibodies are complement and non-complement dependant antibodies. This test is more sensitive than the Lymphocytotoxic antibody tests as it detects low reacting antibodies that are missed by the Lymphocytotoxic test in addition to detecting noncomplement fixing antibodies. Sample: Recipient - whole blood in ACD tube