

# NRL TESTING

## Catalogue

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TGA-Licensed Donor Screening, Reference  
Testing, and Custom Solutions –  
**Your Trusted Partner in Quality**

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# Why NRL Testing?

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Accurate patient diagnosis relies on highly specialised reference and confirmatory testing laboratories.

NRL is a **trusted leader** in infectious disease testing, offering expert reference, screening, and contract testing services. Our laboratory supports critical healthcare needs, including blood and tissue donor screening, ensuring the highest standards of diagnostic accuracy.

As a **GMP-accredited** and **TGA-licensed** facility, NRL provides validated testing for HIV, HBV, HCV, HTLV, and Syphilis. We specialise in resolving complex cases where routine screening is inconclusive and offer TGA-licensed testing for cadaveric samples when alternative sample types are not validated for IVD use.

With proven expertise and a commitment to quality, **NRL Testing delivers reliable results when they matter most.**





# **OUR SERVICE OFFERING**

## 1. Cytomegalovirus (CMV) IgG Serology

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (EDTA), Blood (Sodium and Lithium Heparin), Blood (Sodium Citrate), Plasma (EDTA), Plasma (Sodium and Lithium Heparin), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 200ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Non-reactive < 12.0, Equivocal  $\geq 12.0$  and < 14.0 , Reactive  $\geq 14.0$

**Units of Measurement:** U/mL

## 2. Cytomegalovirus (CMV) IgM Serology

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (EDTA), Blood (Sodium and Lithium Heparin), Blood (Sodium Citrate), Plasma (EDTA), Plasma (Sodium and Lithium Heparin), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 200ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Non-reactive < 18.0, Equivocal  $\geq 18.0$  and < 22.0, Reactive  $\geq 22.0$

**Units of Measurement:** U/mL

## 1. Hepatitis B virus Serology – Core Antibody (Total)

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples including specimens collected from post-mortem donors (non-heart beating). Post-mortem specimens must be collected within 24 hours of death.

**Specimen Required:** Blood (EDTA), Blood (Gel Tube), Blood (Lithium Heparin), Blood (Sodium Citrate), Plasma (EDTA), Plasma (Lithium Heparin), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 500ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Non-reactive  $> 1.1$ , Equivocal  $0.9 \leq$  and  $\leq 1.1$ . Reactive  $< 0.9$

**Units of Measurement:** Index

## 2. Hepatitis B virus Serology – Surface Antigen

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples including specimens collected from post-mortem donors (non-heart beating). Post-mortem specimens must be collected within 24 hours of death.

**Specimen Required:** Blood (ACD), Blood (EDTA), Blood (Gel Tube), Blood (Lithium Heparin), Blood (Sodium Citrate), Plasma (ACD), Plasma (EDTA), Plasma (Lithium Heparin), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 500ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Non-reactive  $< 0.05$ , Reactive  $\geq 0.05$

**Units of Measurement:** IU/mL

## 3. Hepatitis B virus Serology – Surface Antigen Confirmatory

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (ACD), Blood (EDTA), Blood (Gel Tube), Blood (Lithium Heparin), Blood (Sodium Citrate), Plasma (ACD), Plasma (EDTA), Plasma (Lithium Heparin), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 700ul for low reactive samples and 20ul for highly reactive samples

**Turnaround Time:** 7 Days

**Reference Ranges:** Non-reactive  $< 0.05$ , Reactive  $\geq 0.05$

**Units of Measurement:** IU/mL

## 4. Hepatitis B virus Serology – Surface Antibody

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum (from tubes with and without separator gel) and plasma samples

**Specimen Required:** Blood (K2 EDTA), Blood (Gel Tube), Blood (Lithium Heparin), Blood (Sodium Citrate), Plasma (K2 EDTA), Plasma (Lithium Heparin), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 500ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Negative  $< 9.0$ , Equivocal  $9.0 \leq$  and  $< 11.0$ , Positive  $\geq 11.0$

**Units of Measurement:** mIU/mL

## 5. Hepatitis B virus Serology – Anti-HBe

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (EDTA), Blood (Gel Tube), Blood (Lithium Heparin), Blood (Sodium Citrate), Plasma (EDTA), Plasma (Lithium Heparin), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 300ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Non-reactive  $\geq 1.1$ , Equivocal  $\leq 0.9$  and  $< 1.1$ , Reactive  $< 0.9$

**Units of Measurement:** Index

## 6. Hepatitis B virus Serology – HBeAg

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (EDTA), Blood (Gel Tube), Blood (Lithium Heparin), Blood (Sodium Citrate), Plasma (EDTA), Plasma (Lithium Heparin), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 300ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Negative  $< 0.09$ , Equivocal  $\geq 0.09$  and  $< 0.11$ , Positive  $\geq 0.11$

**Units of Measurement:** PEIU/mL

## 7. Hepatitis B virus Serology – HBc IgM

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (EDTA), Blood (Gel Tube), Blood (Lithium Heparin), Blood (Sodium Citrate), Plasma (EDTA), Plasma (Lithium Heparin), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 250ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Non-reactive  $< 0.9$ , Equivocal  $\geq 0.9$  and  $< 1.1$ , Reactive  $\geq 1.1$

**Units of Measurement:** Index

## 8. Hepatitis C virus Serology

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples including specimens collected from post-mortem donors (non-heart beating). Post-mortem specimens must be collected within 24 hours of death.

**Specimen Required:** Blood (ACD), Blood (EDTA), Blood (Gel Tube), Blood (Lithium Heparin), Blood (Sodium Citrate), Plasma (ACD), Plasma (EDTA), Plasma (Lithium Heparin), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 300ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Non-reactive  $< 1.0$ , Reactive  $\geq 1.0$

**Units of Measurement:** S/CO

## 9. Hepatitis C virus Serology

### TEST DETAILS

**Assay Name:** Bio-Rad Monolisa HCV Ag-Ab ULTRA V2 EIA

**Test Method:** Semi-quantitative enzyme immunoassay

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (ACD), Blood (EDTA), Blood (Gel Tube), Blood (Sodium Citrate), Plasma (ACD), Plasma (EDTA), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 100ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Negative <1.0, Positive  $\geq$ 1.0. Units of Measurement: S/Co ratio

## 10. Hepatitis A Serology - Anti-HAV

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Serum, Plasma (Sodium Heparin)

**Specimen Volume Min:** 500ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Non-reactive  $\geq$  1.1, Equivocal  $\leq$  0.9 and <1.1, Reactive <0.9

**Units of Measurement:** Index

## 11. Hepatitis A Serology - HAV IgM

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (EDTA), Blood (Lithium Heparin), Blood (Sodium Citrate), Plasma (EDTA), Plasma (Lithium Heparin), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 300ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Non-reactive <0.9, Equivocal  $\geq$  0.9 and <1.1, Reactive  $\geq$  1.1

**Units of Measurement:** Index

## 12. Hepatitis C virus Serology - Western Blot

### TEST DETAILS

**Assay name:** MP Diagnostics HCV Blot 3.0 WB

**Test Method:** Qualitative enzyme immunoassay

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (EDTA), Blood (Sodium Citrate), Plasma (EDTA), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 50ul

**Results Interpretation:** Non-reactive: No bands of 1+ or greater reactivity

**Reactive:** 1+ or greater reactivity to 2 or more HCV antigens OR 2+ or greater reactivity to core band only

**Indeterminate:** Any single HCV band of 1+ or greater reactivity but does not meet criteria for positive

**Turnaround Time:** 7 Days

**Reference Ranges:** N/A

**Units of Measurement:** HCV specific bands



## 1. Human immunodeficiency virus Serology Screening (HIV)

### TEST DETAILS

**Test Method:** Antigen/ Antibody CLIA

**Specimen Type:** Human serum and plasma samples including specimens collected from post-mortem donors (non-heart beating).  
Post-mortem specimens must be collected within 24 hours of death.

**Specimen Required:** Blood (ACD), Blood (EDTA), Blood (Gel Tube), Blood (Lithium and Sodium Heparin), Blood (Sodium Citrate), Plasma (ACD), Plasma (EDTA), Plasma (Lithium and Sodium Heparin), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 400ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Non-reactive <1.0, Reactive ≥ 1.0

**Units of Measurement:** S/CO

## 2. Bio-Rad Geenius HIV 1/ 2 Confirmatory Rapid Assay

### TEST DETAILS

**Test Method:** Rapid immunochromatographic qualitative assay

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (EDTA), Blood (Heparin), Blood (Citrate), Plasma (ACD), Plasma (EDTA), Plasma (Heparin), Plasma (Citrate), Serum

**Specimen Volume Min:** 100ul

**Turnaround Time:** 3 Days

**Reference Ranges:** N/A

**Units of Measurement:** N/A

## 3. MP Diagnostics HIV Blot 2.2 WB

### TEST DETAILS

**Test Method:** Qualitative enzyme immunoassay

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (EDTA), Blood (Heparin), Blood (Sodium Citrate), Plasma (EDTA), Plasma (Heparin), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 50ul

#### **Result Interpretation:**

##### Non-Reactive

- No viral specific bands present: HIV NEGATIVE
- Detection of p17 antibodies only: HIV NEGATIVE

##### Reactive:

- Detection of 2 ENV (gp160/gp41 and gp120) and any of GAG (p17, p24, p55) or POL (p31, p51, p66): HIV-1 POSITIVE
- Detection of 2 ENV (gp160/gp41 and gp120) and any of GAG (p17, p24, p55) or POL (p31, p51, p66) and HIV-2 specific band is visible: HIV-1 POSITIVE with HIV-2 INDICATED

##### Indeterminate:

- Any viral specific bands present but pattern does not meet criteria for POSITIVE: INDETERMINATE
- Any viral specific bands present but pattern does not meet criteria for POSITIVE but HIV-2 specific band is visible: INDETERMINATE with HIV-2 INDICATED

**Turnaround Time:** 7 Days

**Units of Measurement:** HIV specific bands

## 1. Human T lymphotropic viruses I and II Serology (HTLV)

### TEST DETAILS

**Test Method:** Total Antibody CLIA

**Specimen Type:** Human serum and plasma samples including specimens collected from post-mortem donors (non-heart beating). Post-mortem specimens must be collected within 24 hours of death.

**Specimen Required:** Blood (ACD), Blood (EDTA), Blood (Gel Tube), Blood (Lithium Heparin), Blood (Sodium Citrate), Plasma (ACD), Plasma (EDTA), Plasma (Lithium Heparin), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 500ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Non-reactive < 1.0, Reactive ≥ 1.0

**Units of Measurement:** S/CO

## 2. MP Diagnostics HTLV Blot 2.4 WB

### TEST DETAILS

**Test Method:** Qualitative enzyme immunoassay

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (EDTA), Blood (Heparin), Blood (Sodium Citrate), Plasma (EDTA), Plasma (Heparin), Plasma (Sodium Citrate), Serum

**Specimen Volume Min:** 50ul

#### Result Interpretation:

##### Non-Reactive

- No reactivity to HTLV specific proteins: HTLV Negative

##### Reactive:

- Reactivity to GAG (p19 with or without p24) and two ENV (GD21 and rgp46-I): HTLV-I Positive
- Reactivity to GAG (p24 with or without p19) and two ENV (GD21 and rgp46-II): HTLV-II Positive
- Reactivity to GAG (p19 and p24) and ENV (GD21):
- (HTLV-I Positive if p19 ≥ p24) : HTLV-I Positive
- (HTLV-II Positive if p19 < p24) : HTLV-II Positive

##### Indeterminate:

- HTLV specific bands detected but do not meet criteria for HTLV-I, HTLV-II or HTLV positive: Indeterminate

**Turnaround Time:** 7 Days

**Reference Ranges:** N/A

**Units of Measurement:** HTLV specific bands

## 3. HTLV-1 Proviral Load (PVL) Assay

### TEST DETAILS

**Test Method:** Quantitative Polymerase Chain Reaction (qPCR)

**Intended Use:** For monitoring HTLV-1 proviral load in patients where a diagnosis of HTLV-1 has been made by serology

**Specimen Type:** Peripheral Blood Mononuclear Cells (PBMCs) or Peripheral Blood Leukocytes (PBLs) isolated from whole blood

**Specimen Required:** Blood (EDTA) transported at ambient (15-25°C) temperature; Blood (BD Vacutainer® CPT™ Mononuclear Cell Preparation Tube - Sodium Citrate) transported on side at 2-21°C following centrifugation. Specimen Volume Min: 4mL

**Turnaround Time:** 5 Days

**Units of Measurement:** Blood (EDTA): HTLV-1 copies/10<sup>5</sup> PBLs, Blood (CPT™ - Sodium Citrate): HTLV-1 copies/10<sup>5</sup> PBMCs

## 1. Multiplex HIV/HCV/HBV Nucleic Acid Test- Cobas MPX Test

### TEST DETAILS

**Test Method:** Qualitative multiplex test

**Specimen Type:** Human serum and plasma samples including specimens collected from living and post-mortem donors (non-heart beating).

**Specimen Required:**

Living donor blood samples

- Plasma collected in EDTA, CPD, CPDA1, CP2D and 4% Sodium Citrate (apheresis plasma) anticoagulant and serum collected in serum clot tubes
- Blood collected in CPD, CPDA1, CP2D anticoagulant, Becton–Dickinson EDTA Plasma Preparation Tubes (BD PPT™) or Greiner Vacuette® K2EDTA Plasma Gel Tubes
- Blood collected in serum clot tubes (without plug or separator)

Plasma and Serum samples must be centrifuged within 72 hours of draw.

**Cadaveric blood samples**

- Cadaveric blood collected in EDTA anticoagulant
- Cadaveric blood samples collected in serum clot tubes (without plug or separator)

Plasma and Serum samples must be centrifuged within 72 hours of draw.

**Note:** Specimens collected from cadaver donors must be collected within 24 hours of death.

**Specimen Volume Min:**

- Living Donor Samples: 1.1ml
- Cadaveric Donor Samples: 400µL

**Turnaround Time:** 7 Days

**Units of Measurement:** Ct values

Please refer to *Sample Storage and Transport Requirements* for further information: [Click here](#)

## 1. Rubella IgG II Serology (Quantitative)

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (EDTA), Blood (Heparin), Plasma (EDTA), Plasma (Heparin), Serum

**Specimen Volume Min:** 200ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Negative < 7.0, Equivocal  $\geq$  7.0 and < 10.0, Positive  $\geq$  10.0

**Units of Measurement:** IU/mL

## 2. Rubella IgM Serology

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (EDTA), Blood (Citrate), Plasma (EDTA), Plasma (Citrate), Serum

**Specimen Volume Min:** 200ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Non-reactive < 20.0, Equivocal  $\geq$  20.0 and < 25.0, Reactive  $\geq$  25.0

**Units of Measurement:** AU/mL

## 1. Treponema Serology

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples including specimens collected from post-mortem donors (non-heart beating). Post-mortem specimens must be collected within 24 hours of death.

**Specimen Required:** Blood (EDTA), Blood Heparin, Blood (Citrate), Plasma (EDTA), Plasma (Heparin), Plasma (Citrate), Serum

**Specimen Volume Min:** 300ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Negative <0.9, Equivocal  $\leq 0.9$ -<1.1, Reactive  $\geq 1.1$

**Units of Measurement:** Index

## 2. Becton Dickinson BD Macro-Vue Rapid Plasma Reagin (RPR) Card Test (Qualitative and Quantitative)

### TEST DETAILS

**Test Method:** Agglutination

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (EDTA), Blood (Heparin), Plasma (EDTA), Plasma (Heparin), Serum

**Specimen Volume Min:** 100ul

**Turnaround Time:** 3 Days

**Reference Ranges:** N/A

**Units of Measurement:** N/A

# Toxoplasma Testing



## 1. Toxoplasma gondii IgG Serology

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (EDTA), Blood (Heparin), Blood (Citrate), Plasma (EDTA), Plasma (Heparin), Plasma (Citrate), Serum

**Specimen Volume Min:** 200ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Negative <7.2, Equivocal  $\geq 7.2$  and <8.8, Positive  $\geq 8.8$

**Units of Measurement:** IU/mL

## 2. Toxoplasma gondii IgM Serology

### TEST DETAILS

**Test Method:** CLIA

**Specimen Type:** Human serum and plasma samples

**Specimen Required:** Blood (EDTA), Blood (Heparin), Blood (Citrate), Plasma (EDTA), Plasma (Heparin), Plasma (Citrate), Serum

**Specimen Volume Min:** 200ul

**Turnaround Time:** 5 Days

**Reference Ranges:** Negative <6.0, Equivocal  $\geq 6.0$  and <8.0, Positive  $\geq 8.0$

**Units of Measurement:** AU/mL

For more information about our testing services or to discuss your specific requirements, please reach out to us - **we are here to help**



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