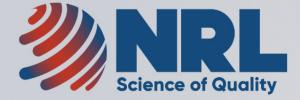
Quality Control Solutions **Catalogue**







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ABOUT NRL

NRL was established in 1985 as part of the Australian Government's HIV/AIDS Strategy, to evaluate HIV tests and adjudicate on the interpretation of HIV test results. Today, NRL remains a not-for-profit scientific organisation that exists for the benefit of the public. Its overall goal is to support laboratories, in Australia and internationally, that perform testing for the diagnosis and management of human infectious disease. NRL is designated a WHO Collaborating Centre for Diagnostics and Laboratory Support for HIV and AIDS and Other Blood-borne Infections.



MISSION

To promote the quality of tests and testing for infectious diseases globally.

GOALS

NRL seeks to ensure that laboratory results for infectious diseases are of high quality by providing:

- Comprehensive and innovative quality assurance services
- Evaluations of tests and test algorithms
- Specialised laboratory testing services
- Training with sustainable outcomes
- Consultation and advice on policy relating to laboratory testing



WHAT IS QCONNECT?

A READY-TO-USE CONCEPT

Ready-to-use concept means that the controls may remain directly in the carrier or robots of the test system. The manual filling step is no longer necessary. Less dead volume is required for multi analyte measurements in a single vial, thus saving customers valuable control material.

ADVANTAGES

- Products developed according to individual platforms (e. g. for ARCHITECT®, LIAISON® and others).
- High yield.
- Ready to use.
- Less sources of error.
- Better protection against contamination.
- Predefined control limits.
- Barcoded labels.
- Easy handling and highly efficient.

WHAT IS QCONNECT AND WHY USE IT?

QConnect is a completely integrated and simplified QC solution. Everything connected to QC – ordering of customised QC samples, results management and reporting, control limits, Uncertainty of Measurement (MU) reports, troubleshooting and the ability to liaise with other users and experts – are all streamlined into a single portal.



2 QCONNECT FEATURES

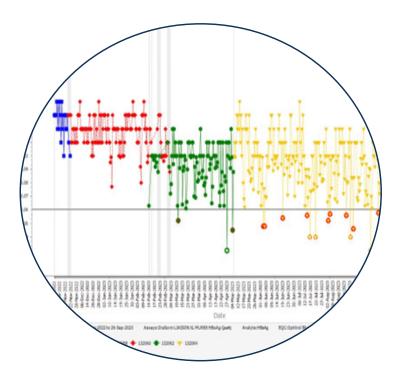
- QConnect QC samples have been specifically optimised and validated to match assays commonly used for infectious disease testing. These QC samples have been designed to react at an appropriate level within the analytical range of various assays.
- QConnect QC samples are registered IVDs, manufactured in an ISO 13485 facility and where applicable, are standardised against WHO international standards leading to traceability claims, consistent with ISO 17511.
- QConnect QC samples are ready-to-use and are barcoded to ensure traceability. For your convenience, the Serology Multimarker Range of products is easily identifiable by their colour coding.



3 QC SAMPLES

- A single batch of each QConnect QC sample is available, allowing all QConnect participants using the same assay to compare their QC results.
- This QConnect catalogue offers a selection of QC samples for clinical and blood screening laboratories performing serology and/or Nucleic Acid Testing (NAT). Simply locate the manufacturer and system currently in use, and select the appropriately matched QC.

Establishing standing orders are highly recommended as a way of ensuring that your stock never runs low.





4 EDCNET

EDCNet is an internet-based multilingual software free with the purchase of Optitrol QConnect products, specifically designed for monitoring both serology and NAT QC results. EDCNet allows for the simple collection, management and analysis of QC data with ongoing real time support from the NRL QC Services team. Once registered, QConnect members can access EDCNet through logging in with your unique username and password. The anonymity of all participants is protected by a unique laboratory code and latest IT security systems.

QConnect members who use EDCNet can share QC data to assess the accuracy and precision of their assays. All QConnect-labelled products are automatically set up in EDCNet, and the functionality is designed for all levels of users. Customised QC reports, providing real-time review of results in a Levey-Jennings, Mean/ Scatter, graphical or tabular format, can be sent directly to each QConnect member by email or saved as a PDF. EDCNet also has a "network" option that allows a group of laboratories to track trends and compare QC test results across all laboratories within that network.



5 INTERFACING

EDCNet interfacing is a move towards automated data entry and subsequent analysis of QConnect testing data, available to all QConnect users. This has been developed to remove the cumbersome and time-consuming manual data entry process and will improve the overall experience of EDCNet data entry. Interfacing has currently been implemented for 5 different instruments from 4 major diagnostic device manufacturers, with more in the pipeline.

EDCNet can now be interfaced with multiple instruments for automated upload of QConnect QC and related Kit Control data. For interfacing to work, bridging software has been developed that links the user system to the EDCNet server, accepting multiple file formats containing testing data. For QConnect users to implement the EDCNet interfacing in their system, a subscription fee will be charged per instrument.

For more information regarding EDCNet interfacing, and related technical details, get in touch with our customer relations team: **customerengagement@nrlquality.org.au**

6 QCONNECT LIMITS

QConnect Limits take advantage of peer data sharing and provides users robust, predetermined control limits. QConnect Limits are based on more than 10 years of QC data and are available for commonly used QC sample/assay combinations. These statistically validated QC limits give you the confidence to know immediately when your system is not running to specification.

What are **QConnect Limits**?

- QConnect Limits, developed by NRL, utilise historical data determining expected upper and lower values of results for each EQC sample/assay combination. This method is an improvement on traditional QC approaches used to determine QC limits which have been derived from clinical chemistry and may not be applicable to serology or NAT assays.
- Over time, multiple lots of QC samples have been tested by many laboratories, operators and instruments across numerous reagent lots. Data extracted from EDCNet reflects the expected extent of variation for that QC sample/assay combination.
- QConnect Limits allow for the identification of any unexpected QC result, potentially identifying unacceptable variation from a range of sources including reagent lots; instruments or equipment calibration and maintenance; operator errors; assay and QC sample storage and transport or environmental conditions.

How to use **QConnect Limits**?

- When entering data into EDCNet, results outside the QConnect Limits for that QC sample/assay combination are flagged in red, indicating further investigation is required. All results outside the QConnect Limits are held in quarantine until they are reviewed by an NRL Quality services staff member.
- Participants can overlay QConnect Limits on Levey-Jennings and other EDCNet charts in conjunction with laboratory-specific and other statistical overlay options. NRL also provides a suggested approach, including a check list, for the investigation and troubleshooting of unexpected results.



7 MU REPORTS

To fulfil regulatory requirements with ease, you can subscribe to annual MU reports specific for your laboratory. NRL has developed a method for estimating and reporting MU for assays based on a comparison of your laboratory's QC results, with those reported by other laboratories (peer group). The methodology for determining MU is published and scientifically validated. The MU estimation accounts for the assay's imprecision (random error) and bias (systematic error).

NEWS & INVESTIGATIONS

8

We know you don't have time to spend countless hours searching for information. NRL also supplies a list of relevant literature about QC for infectious diseases testing including:

- Journal Publications
- Presentations
- Investigations and Case Studies
- Laboratory Standards and Requirements

Q&A'S

The QConnect portal provides you with a repository of information including frequently asked questions about the usage, storage, testing or troubleshooting of results obtained from your QC sample.

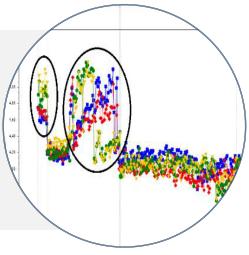
If you can't find the answers there, additional questions can always be directed to:

qconnect@nrlquality. org.au

10 SUPPORT

NRL provides scientific and technical support to all QConnect and EDCNet users. All data outside QConnect Limits are reviewed on a daily basis by NRL Quality Assurance Team (QA). As part of the personalised QConnect service, NRL QA Team are available to perform detailed investigations into unusual QC results, liaise with assay manufacturers and issue written reports.

The NRL QConnect approach is the only scientifically validated way to monitor infectious disease testing QC results.





SEROLOGY MULTI-MARKER Blood Screening

Optitrol Blue

	Manufacturer Abbott	ARCHITECT Alinity i / s	Storage and Stability Sealed:* 24 months at 2 to 8°C	Analytes included Anti-HBc IgG Anti-HCV IgG
	DiaSorin	 LIAISON LIAISON XL 	After opening: 90 days at 2 to 8°C	Anti-HIV-1 IgG Anti-HTLV-I IgG
	CAT NO.	CONTENT	КІТ	Anti- <i>Treponema</i> IgG
	SR11011	Positive control	4 x 5.0 mL	HBsAg

Optitrol Red

Manufacturer Roche	System Elecsys cobas	Storage and StabilitySealed:*24 months at 2 to 8°CAfter opening:90 days at 2 to 8°C	Analytes included Anti-HBc IgG Anti-HCV IgG Anti-HIV-1 IgG
CAT NO.	CONTENT	КІТ	Anti-HTLV-I IgG Anti- <i>Treponema</i> IgG
SR11051	Positive control	4 x 5.0 mL	HBsAg

Optitrol Green

	Manufacturer Bio-Rad	System EVOLIS	Storage and Sealed:* 24 months at After opening	2 to 8°C	Analytes included Anti-HBc IgG Anti-HCV IgG
Towns			90 days at 2 t	to 8°C	Anti-HIV-1 IgG
the second se					Anti-HTLV-I IgG
	CAT NO.	CONTENT	KIT		Anti- <i>Treponema</i> IgG
	SR11043	Positive control	2 x 5.0 mL		HBsAg

Optitrol Orange

Manufactu Siemens	 System ADVIA Centaur Atellica 	Storage and Sta Sealed:* 24 months at 2 to After opening: 90 days at 2 to 8	Anti-HBc lgG p 8°C Anti-HCV lgG
CAT NO.	CONTENT	КІТ	Anti-HTLV-I IgG Anti- <i>Treponema</i> IgG
SR11061	Positive control	4 x 5.0 mL	HBsAg



Optitrol SeroNeg

	Manufacturer	System	Storage and Stability	Negative for
	Abbott	ARCHITECT Alinity i / s	Sealed:* 36 months at 2 to 8°C	Anti-HAV Anti-HBc
	Bio-Rad →	EVOLIS	After opening: 90 days at 2 to 8°C	Anti-HBe Anti-HBs
	DiaSorin →	LIAISON	90 ddys di 2 to 8 C	
10		LIAISON XL		Anti-HCV
	Roche →	Elecsys cobas		Anti-HEV
	Siemens	ADVIA Centaur		Anti-HIV-1
		Atellica		Anti-HTLV-I
	CAT NO.	CONTENT	KIT	Anti- <i>Treponema</i> HBeAq
	SR11002	Negative Control	2 x 5.0 mL	HBsAg
				HIVp24 Ag

SEROLOGY MULTI-MARKER Hepatitis

Optitrol HEPA-1 Manufacturer System **Storage and Stability Analytes included** Sealed:* Anti-HAV IgM VIDAS bioMérieux 24 months at 2 to 8°C Anti-HBc IgM LIAISON After opening: DiaSorin LIAISON XL Anti-HEV IgM 90 days at 2 to 8°C Wantai ELISA HBeAg CAT NO. CONTENT KIT SR12027 Positive control 2 x 2.5 mL

Optitrol HEPA-2

Manufactur Abbott Mikrogen Roche Siemens	$ \stackrel{\text{rer}}{\longrightarrow} \stackrel{\text{rer}}{\longrightarrow} \stackrel{\text{rer}}{\rightarrow} $	System ARCHITECT Alinity i ELISA Elecsys cobas ADVIA Centaur Atellica	Storage and Sealed:* 24 months at After opening 90 days at 2 t	2 to 8°C	Analytes include Anti-HAV IgM Anti-HBc IgM Anti-HEV IgM HBeAg	ed
CAT NO.	С	ONTENT	KIT			
SR12037	P	ositive control	2 x 2.5 mL			



Contraction of the second seco		System LIAISON LIAISON XL ELISA CONTENT cositive control	Storage and S Sealed:* 18 months at 2 After opening 90 days at 2 to KIT 2 x 2.5 mL	to 8°C	Analytes included Anti-HAV IgG Anti-HBe IgG Anti-HBs IgG Anti-HEV IgG
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Optitrol HEPR-2

Manufactu Abbott Mikrogen Roche Siemens		System ARCHITECT Alinity i ELISA Elecsys cobas ADVIA Centaur Atellica	Sealed:* 18 months After ope	and Stability s at 2 to 8°C ming: at 2 to 8°C	Analytes included Anti-HAV IgG Anti-HBe IgG Anti-HBs IgG Anti-HEV IgG	d
CAT NO.	c	CONTENT	КІТ			
SR12057	P	ositive control	2 x 2.5 mL			

SEROLOGY MULTI-MARKER ToRCH

Optitrol ToRCH G

Manufacturer Abbott bioMérieux DiaSorin	System ARCHITECT Alinity i VIDAS LIAISON LIAISON XL	Storage and Stability Sealed:* 24 months at 2 to 8°C After opening: 90 days at 2 to 8°C	Analytes included Anti-CMV IgG Anti-EBV EBNA IgG Anti-EBV VCA IgG Anti-HSV 1 IgG Anti-Rubella IgG Anti- <i>Toxoplasma</i> IgG
CAT NO.	CONTENT	КІТ	
SR13017 P	ositive control	2 x 2.5 mL	

WARE OF BUILTING 10

*From date of manufacture.

Optitrol ToRCH M			
	Abbott \longrightarrow ARC Alin bioMérieux \longrightarrow VID, DiaSorin \longrightarrow LIAI	After opening:	Analytes included Anti-CMV IgM Anti-EBV VCA IgM Anti-HSV-1 IgM Anti-Rubella IgM Anti- <i>Toxoplasma</i> IgM
	CAT NO. CONTE	NT KIT	
	SR13027 Positive	e control 2 x 2.5 mL	

SEROLOGY MULTI-MARKER Others

Manufacturer DiaSorin —	System	Storage and Stability Sealed:* 24 months at 2 to 8°C After opening: 90 days at 2 to 8°C	Analytes included Anti-Measles IgG Anti-Mumps IgG Anti-Parvo B19 IgG Anti-VZV IgG
CAT NO.	CONTENT	КІТ	
SR15017	Positive control	2 x 2.5 mL	

Optitrol Paediatric G-2

bioMérieux 🗕	→ VIDAS	Sealed:* 24 months at 2 After opening: 90 days at 2 to	Anti-Measles IgG Anti-Mumps IgG Anti-Parvo B19 IgG Anti-VZV IgG	
CAT NO.	CONTENT	KIT		
SR15027	Positive control	2 x 2.5 mL		



SEROLOGY SINGLE-MARKER Blood Screening

Optitrol HIV p24

bioMérieux → DiaSorin → Roche → Siemens →	VIDAS LIAISON LIAISON XL Elecsys cobas ADVIA Centaur Atellica	90 days at 2 to 8°C	
CAT NO.	CONTENT	КІТ	
SR11103 Pc	ositive control	4 x 2.5 mL	

Optitrol HIV 2

	Manufactu	rer	System	Storage and	Stability	Analytes included	
	Abbott	\rightarrow	ARCHITECT Alinity i / s	Sealed:* 36 months ar		Anti-HIV-2-IgG	
71	DiaSorin	\rightarrow	LIAISON LIAISON XL	After openin 90 days at 2			
	Roche	\rightarrow	Elecsys cobas				
	Siemens	\rightarrow	ADVIA Centaur Atellica				
	CAT NO.	С	ONTENT	KIT			
	SR11117	Positiv	ve control	2 x 2.5 mL			



Optitrol Syphilis G						
Andrew Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements Decements	Manufacturer Biokit Bio-Rad Fujirebio Newmarket Bio Trinity Biotech	S 2 9 9 Domedical	Storage and Gealed:* 24 months a 24 months a 24 months a 24 months and 24 months and 25 months and 26 months and 26 months and 27 months and 20 months and 2	t 2 to 8°C g:	Analytes included Anti- <i>Treponema pallidum</i> IgG	
	CAT NO.	CONTEN	т к	IT		
	SR11137	Positive cont	trol 2	x 2.5 mL		

SEROLOGY SINGLE-MARKER Tropical Diseases

Optitrol Malaria

Manufacture		Sealed:*	t 2 to 8°C	Analytes included Anti- <i>Plasmodium</i> sp. Ig	G
CAT NO.	CONTENT	KIT			
SR16017	Positive cont	rol 2 x 2.5 mL			



SEROLOGY SINGLE-MARKER Others

Optitrol COVID-19 G

	CAT NO. CONTENT KIT
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Optitrol HSV 2 Manufacturer System Storage and Stability **Analytes included** Sealed:* LIAISON Anti-HSV-2 lgG DiaSorin 24 months at 2 to 8°C LIAISON XL After opening: 90 days at 2 to 8°C CAT NO. CONTENT КІТ 2 x 2.5 mL SR13037 Positive control

Optitrol Parvo M						
	Manufacturer DiaSorin →	System LIAISON LIAISON XL	Storage and St Sealed:* 24 months at 2 After opening: 90 days at 2 to	to 8°C	Analytes included Anti-Parvo B19 IgM	
	CAT NO.	CONTENT	КІТ			
	SR15057 Po:	sitive control	2 x 2.5 mL			



Charlow .	Manufacture	er System	Storage and Stability	Analytes included
	DiaSorin	→ LIAISON LIAISON XL	Sealed:" 24 months at 2 to 8°C After opening: 90 days at 2 to 8°C	Anti-Mumps IgM
	CAT NO.	CONTENT	KIT	
	SR15067	Positive control	2 x 2.5 mL	

Optitrol VZV M Analytes included Manufacturer System Storage and Stability **Sealed:*** 24 months at 2 to 8°C LIAISON LIAISON XL Anti-VZV IgM DiaSorin After opening: 90 days at 2 to 8°C CAT NO. CONTENT KIT 2 x 2.5 mL SR15077 Positive control



MOLECULAR QUALITY CONTROLS Blood Borne Viruses

Optitrol NAT HBV Viral Load

CAT NO. CO	NTENT	КІТ	
NT01014 Positiv	ve control	10 x 1.2 mL	

Optitrol NAT HCV Viral Load

DiaMex 1 Dptitro	Assay/Instrum All HCV viral la assays	oad Sealed:* 24 month 5 days a After ope	and Stability ns at -20 to -40 °C, t 2 to 8 °C ening: at 2 to 8 °C	Analytes included HCV RNA	
	CAT NO.	CONTENT	КІТ		
	NT01024	Positive control	10 x 1.2 mL		





Optitrol NAT HIV-2 Assay/Instrument Storage and Stability **Analytes included** All HIV viral load Sealed:* HIV-2 RNA assays 24 months at -20 to -40 $^{\circ}\text{C},$ DiaMex 5 days at 2 to 8 °C Optitrol After opening: 24 hours at 2 to 8 °C CAT NO. CONTENT КІТ 10 x 1.2 mL NT01036 Positive control

Optitrol NAT NEG

DiaMex : Optimol	Assay/Instrument Negative for HBV, HCV, HIV-1/-2 a.o.		Storage and Stability Sealed:* 24 months at -20 to -40 5 days at 2 to 8 °C After opening: 24 hours at 2 to 8 °C		Negative for HBV DNA HCV RNA HIV-1/-2 a.o. RNA	
	CAT NO.	CONTEN	т кі	r		
	NT01051	Negative co	ontrol 10	x 1.2 mL		

Optitrol NAT Triplex				
DiaMex 1 Optimol	Assay/Instrum Roche cobas	MPX S 24 5 A	torage and Stability ealed:* 4 months at -20 to -4 days at 2 to 8 °C fter opening: 4 hours at 2 to 8 °C	Analytes included HBV DNA 0 °C, HCV RNA HIV-1 RNA
	CAT NO.	CONTENT	KIT	
	NT01042	Positive cor	ntrol 10 x 1.2 mL	



MOLECULAR QUALITY CONTROLS Other

Optitrol NAT CMV

DiaMex : Detroit of the second s	Assay/Instrur All qualitative viral load CMV assays	and	Storage and Stability Sealed: [•] 24 months at -20 to -40 °C, 5 days at 2 to 8 °C After opening: 24 hours at 2 to 8 °C		Analytes included CMV DNA
	CAT NO.	CONTE	NT	КІТ	
	NT02022	Positive o	ontrol	10 x 1.2 mL	

Optitrol NAT CT/NG

DiaMez: Optirol	Assay/Instrument All assays that detect Chlamydia trachomatis / Neisseria gonorrhoeae		Storage and Stability Sealed:* 24 months at -20 to -40 °C 5 days at 2 to 8 °C After opening: 24 hours at 2 to 8 °C		Analytes included Chlamydia trachomatis °C, Neisseria gonorrhoeae
	CAT NO.	CONTENT		КІТ	
	NT02012	02012 Positive contro		10 x 1.2 mL	





Optitrol NAT HPV NEG Assay/Instrument **Storage and Stability Negative for** Sealed:* HPV DNA All HPV qualitative 24 months at 2 to 8 °C assays After opening: DiaMex 5 days at 2 to 8 °C Optitrol CAT NO. CONTENT KIT NT06014 Negative control 10 x 1.2 mL

Optitrol NAT SARS-CoV-2

DiaMest Optimal	Assay/Instrument All assays that detect SARS-CoV-2 RNA		Storage and Stability Sealed:* 24 months at -20 to -40 °C, 5 days at 2 to 8 °C After opening: 24 hours at 2 to 8 °C		Analytes included SARS-CoV-2 RNA	
	CAT NO.	CONTEN	T	КІТ		
	NT04032	Positive contr		10 x 0.6 mL		

