# ACCURUN® 345 SERIES 150

HIV-1 RNA, HCV RNA, HBV DNA Positive Quality Control







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10671US-16

April 2024

## **Explanation of symbols used in LGC Clinical Diagnostics product labeling**



Upper limit of temperature



Temperature limitation



Authorized Representative in the European Community



Biological risks



Use By



In Vitro Diagnostic Medical Device



Negative control



Catalogue number



Consult instructions for use



Positive control



Batch code



Manufacturer



Control



Highly Flammable



Toxic by inhalation, in contact with skin and if swallowed





# ACCURUN® 345 SERIES 150 HIV-1 RNA, HCV RNA, HBV DNA

## **Positive Quality Control**

#### NAME AND INTENDED USE

ACCURUN controls are intended to estimate laboratory testing precision and can be used to detect errors in laboratory testing procedures. ACCURUN® 345 HIV-1 RNA, HCV RNA, HBV DNA Positive Quality Control Series 150 is formulated for use with in vitro diagnostic test methods that detect HIV-1 RNA, HCV RNA and HBV DNA. For In Vitro Diagnostic Use.

#### SUMMARY

Frequent testing of independent quality control samples provides the analyst with a means of monitoring the performance of laboratory assays. Routine use of controls enables laboratories to monitor day-to-day test variation, lot-to-lot performance of test kits, and operator variation, and can assist in identifying increases in random or systematic error. A well-designed quality control program can provide added confidence in the reliability of results obtained for unknown specimens. The use of independent controls may provide valuable information concerning laboratory proficiency and kit lot variation that may affect assay sensitivity1.

#### PRINCIPLES OF THE PROCEDURE

ACCURUN 345 HIV-1 RNA, HCV RNA, HBV DNA Positive Quality Control Series 150 is designed for use with *in vitro* assay procedures for the purpose of monitoring test performance. ACCURUN 345 HIV-1 RNA, HCV RNA, HBV DNA Positive Quality Control Series 150 is prepared by diluting separate stocks of known titers of HIV-1 RNA, HCV RNA, and HBV DNA with defibrinated plasma negative for HIV-1 RNA, HCV RNA, and HBV DNA and nonreactive for HBsAg and antibodies to HIV 1 and HIV 2, and HTLV. ACCURUN controls do not have assigned values. Specific levels of reactivity will vary among different manufacturers' assays, different procedures, different lot numbers and different

#### REAGENTS

Item No. 2020-0104 5 x 1.2 mL per vial 5 x 4.0 mL per vial Item No. 2020-0105

ACCURUN 345 HIV-1 RNA, HCV RNA, HBV DNA Positive Quality Control Series 150 contains stabilizers and 0.09% sodium azide as preservative.

#### WARNINGS AND PRECAUTIONS

#### For In Vitro Diagnostic Use.

CAUTION: Handle ACCURUN controls and all human blood products as though capable of transmitting infectious agents. ACCURUN 345 HIV-1 RNA, HCV RNA, HBV DNA Positive Quality Control Series 150 is manufactured from human serum or plasma nonreactive for antibodies to HIV 1 and 2, and HTLV with current FDA licensed tests.

#### Safety Precautions

Use the Centers for Disease Control (CDC) recommended universal precautions for handling ACCURUN and human blood<sup>2</sup>. Do not pipette by mouth; do not smoke, eat or drink in areas where specimens are being handled. Clean any spillage by immediately wiping up with 0.5% sodium hypochlorite solution. Dispose of all specimens, controls, and materials used in testing as though they contain infectious agents.

#### Handling Precautions

Do not use ACCURUN controls beyond the expiration date. Avoid contamination of the controls when opening and closing the vials. To prevent formation of potentially explosive compounds due to reactions of sodium azide and copper or lead pipes, flush waste lines with large quantities of water.

### STORAGE INSTRUCTIONS

For maximum stability, ACCURUN 345 HIV-1 RNA, HCV RNA, HBV DNA Positive Quality Control Series 150 should be stored at -70°C. If preferred, vials may be stored at -20°C for up to six months. To prevent leakage, store vials

### INDICATIONS OF REAGENT INSTABILITY OR DETERIORATION

Alterations in physical appearance may indicate instability or deterioration of ACCURUN controls. Solutions that are visibly turbid should be discarded.

#### **Materials Provided**

ACCURUN 345 HIV-1 RNA, HCV RNA, HBV DNA Positive Quality Control Series 150 is formulated to be reactive for HIV-1 RNA, HCV RNA and HBV DNA and nonreactive for antibodies to HIV 1 and 2, and HTLV

### Materials Required but not Provided

Refer to instructions supplied by manufacturers of the test kits to be used.

#### Instructions for Use

- Prior to each use, allow the control to reach room temperature and mix by gentle inversion.
- Each vial of ACCURUN 345 should not be used more than three times and must be used within 10 days after first opening.
- Immediately after each use, refrigerate ACCURUN 345 at 2-8°C.
- When the vial is opened for the first time, record the date opened and the expiration date on the vial.
- To minimize the chance of contamination, discard the vial after first use

ACCURUN controls should be included in a test run using exactly the same procedure provided by the manufacturer for unknown specimens. ACCURUN controls must NOT be substituted for the positive and negative control reagents provided with manufactured test kits.

#### **Quality Control**

Since ACCURUN controls do not have assigned values, it is recommended that each laboratory validate the use of each lot of ACCURUN with each specific assay system prior to its routine use in the laboratory.

#### INTERPRETATION OF RESULTS

Levels of reactivity of ACCURUN 345 HIV-1 RNA, HCV RNA, HBV DNA Positive Quality Control Series 150 may vary with different manufacturers' tests and different test kit lots. Since the control does not have an assigned value, the laboratory must establish a range for each lot of ACCURUN 345 HIV-1 RNA, HCV RNA, HBV DNA Positive Quality Control Series 150. When results for ACCURUN 345 HIV-1 RNA, HCV RNA, HBV DNA Positive Quality Control Series 150 are outside the established acceptance range of values, it may be an indication of unsatisfactory test performance Possible sources of error include: deterioration of test kit reagents, operator error, faulty performance of equipment, or contamination of reagents.

LIMITATIONS OF THE PROCEDURE
ACCURUN CONTROLS MUST NOT BE SUBSTITUTED FOR THE POSITIVE AND NEGATIVE CONTROL REAGENTS PROVIDED WITH MANUFACTURED TEST KITS.

TEST PROCEDURES and INTERPRETATION OF RESULTS provided by manufacturers of test kits must be followed closely. Deviations from procedures recommended by test kit manufacturers may produce unreliable results ACCURUN controls are not calibrators and should not be used for assay calibration. Performance characteristics for ACCURUN 345 HIV-1 RNA, HCV RNA, HBV DNA Positive Quality Control Series 150 have been established only for HIV-1 RNA, HCV RNA and HBV DNA. Adverse shipping and storage conditions or use of outdated controls may

#### EXPECTED RESULTS

ACCURUN 345 HIV-1 RNA, HCV RNA, HBV DNA POSITIVE QUALITY CONTROL SERIES 150 DOES NOT HAVE AN ASSIGNED VALUE. Specific levels of reactivity will vary among different manufacturers' assays, different procedures, different lot numbers and different laboratories. Procedures for implementing a quality assurance program and monitoring test performance on a routine basis must be established by each individual laboratory. Each laboratory should establish its own range of acceptable values. For example, the acceptable range might include all values within 2 standard deviations of the mean of 20 data points obtained in 20 runs over a period of 30 days<sup>3</sup>.

Table 1 lists typical data for ACCURUN 345 HIV-1 RNA, HCV RNA, HBV DNA Positive Quality Control Series 150. Data are expressed as specified by the assay manufacturer.

#### SPECIFIC PERFORMANCE CHARACTERISTICS

ACCURUN controls are designed for use with in vitro assay procedures for purposes of monitoring assay performance. ACCURUN 345 HIV-1 RNA, HCV RNA, HBV DNA Positive Quality Control Series 150 is formulated to be reactive for HIV-1 RNA, HCV RNA and HBV DNA and nonreactive for antibodies to HIV 1 and 2, and HTLV. ACCURUN controls do not have assigned values. Specific levels of reactivity will vary among different manufacturers' assays, different procedures, different lot numbers, and different laboratories. Procedures for implementing a quality assurance program and monitoring test performance on a routine basis must be established by each individual laboratory.

#### REFERENCES

- Green IV GA, Carey RN, Westgard JO, Carten T, Shablesky LA, Achord D, Page E, and Le AV. Quality control for qualitative assays: quantitative QC procedure designed to assure analytical quality required for an ELISA for hepatitis B surface antigen. Clin. Chem. 43:9 1618–1621, 1997.
- Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee, 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare
- Statistical Quality Control for Quantitative Measurements: Principles and Definitions; Approved Guideline-Fourth Edition, CLSI document C24, 2016

Table 1. Typical data for ACCURUN 345 HIV-1 RNA, HCV RNA, HBV DNA Positive Quality Control Series 150

Manufacturer	Assay	Result
Roche Molecular Systems, Inc. Pleasanton, CA	COBAS <sup>®</sup> 5800/6800/8800 HIV-1	500 copies/mL
Abbott Laboratories Abbott Park, IL	m2000 RealTime HIV-1 Assay	300 copies/mL
Roche Molecular Systems, Inc. Pleasanton, CA	COBAS® 5800/6800/8800 HCV	500 IU/mL
Abbott Laboratories Abbott Park, IL	m2000 RealTime HCV Assay	210 IU/mL
Roche Molecular Systems, Inc. Pleasanton, CA	COBAS® 5800/6800/8800 HBV	400 IU/mL
Abbott Laboratories Abbott Park, IL	m2000 RealTime HBV Assay	180 IU/mL
Grifols Diagnostic Solutions Inc. Emeryville, CA	Procleix <sup>®</sup> Ultrio <sup>®</sup> Assay	Positive
Roche Molecular Systems, Inc. Pleasanton, CA	cobas MPX	Positive

For assistance, contact LGC Clinical Diagnostics Technical Support at +1 508.244.6400.