

To Whom It May Concern

For ISO 15189:2012 and ISO 15189:2014 accredited Laboratories — requirements regarding "Calibration & Verification Procedures" [1]

All In vitro Diagnostics Products which are manufactured and distributed by Roche Diagnostics GmbH and for which a Free-Sales-Certificate is issued, are CE-marked.

The In-Vitro-Diagnostics Directive of the European Union [2A.] which is currently switching to IVD Regulation 2017/746/EU (final timeline: May 26, 2022) [2B.] requires for all CE marked products that the manufacturer assures compliance of the products with the requirements of the mentioned directive or regulation. This means that all processes in development and manufacturing of Roche Diagnostics GmbH products are guided by a Quality Management System. Our Quality Management System is in compliance with the requirements from ISO 13485:2016 [3] and 21 CFR Part 820 [4].

The mentioned regulations and standards require that the production systems and measuring devices used are qualified and the manufacturing and test procedures are validated. This status has to be assured by scheduled maintenance and by regular qualification resp. validation reviews and updates.

All physical quantities, calibrators and controls used in Roche Diagnostic systems are fully traceable to certified standards or reference materials. The performance of all In-vitro diagnostics systems of Roche Diagnostics GmbH at the customer site is assured if regular Quality Control measurements, cleaning and maintenance procedures as described in the instructions for use or service documentation are performed. By having controlled internal procedures and by running the tasks required in the respective user documentation, all In-vitro diagnostics systems of Roche Diagnostics GmbH will be performed as specified during their defined lifetime.

Additional calibration or verification procedures are NOT required of the user in order to assure the specified performance of every system of Roche Diagnostics GmbH. Only if a user deviates from these manufacturer's recommendations, the user have to establish site-specific calibration and verification procedures as part of his accreditation process.

- [1] ISO 15189:2012/ ISO 15189:2014 Medical laboratories — Requirements for quality and competence
- [2] A. Directive 98/79/EC of the European Parliament and of the Council of the 27 October 1998 on vitro diagnostics medical devices;  
B. IVD Regulation 2017/746/EU of the European Parliament and of the Council of 5 April 2017 on in vitro diagnostic medical devices and repealing Directive 98/79/EC and Commission Decision 2010/227/EU
- [3] EN ISO 13485:2016 Medical devices — Quality management systems-Requirements for regulatory purposes
- [4] CFR Part 820, Quality System regulations 21 Regulations on medical devices

Mannheim, 4. August 2021

Sincerely,

Roche Diagnostics GmbH

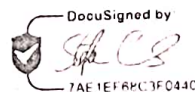
*i.V./on behalf of the company*

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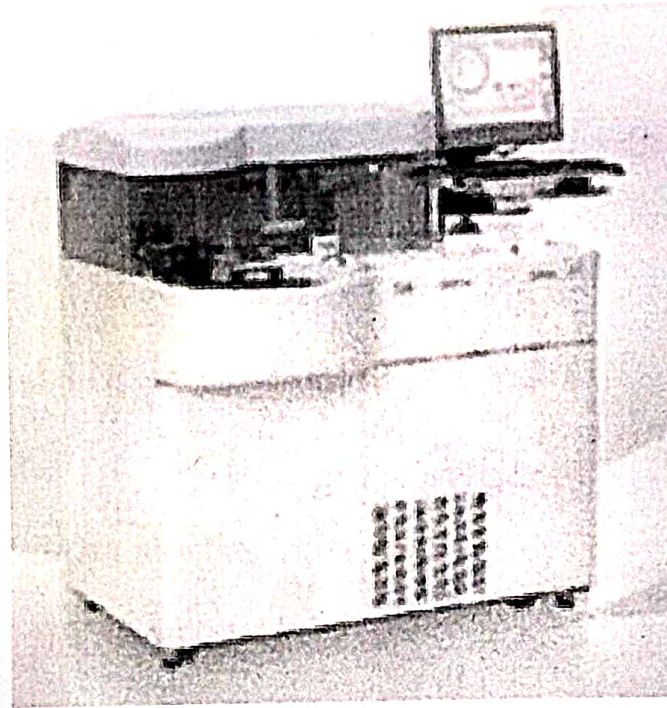
Andrea Weber  
Manager Global Regulatory Affairs

**Roche Diagnostics GmbH**  
Sandhofer Straße 116  
D-68305 Mannheim

*i.V./on behalf of the company*

DocuSigned by:  
  
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Stefan Grigarczik  
Manager Global Regulatory Affairs



**INSTALLATION QUALIFICATION**  
**OPERATION QUALIFICATION**  
**&**  
**OPERATIONAL QUALIFICATION**

## VALIDATION REPORT

Equipment Name: Cobas c311

Equipment Make: Roche/Hitachi

Equipment Model No.: Cobas c311

Equipment Serial No.: 18L9-09

Supplier: Roche Diagnostics India Pvt. Ltd.

• **APPROVAL OF THE IQ\OQ\PQ PROCEDURE:**

Both Clinical Laboratory and Roche Diagnostics India Pvt. Ltd. are jointly responsible for the installation of (Cobas c-311) S. No.: 18L9-09 in the Clinical Laboratory.

**Validation Team from (Vendor):**

Name: 1. Mr. Hari Singh  
2. Mr. Deepak Patidar

Signature: 

Date: 07/10/2023

Company: Roche Diagnostics India Pvt. Ltd.

**Validation Team from Clinical Lab:**

Name: Mr. Pavan Kushwah

Signature: 

Date: 7/10/23

Department: Lab. Supervisor

Site: Redcliffe Lifetech Pvt. Ltd. Shanti Madhuvan Plaza, Delhi Gate Agra,  
U.P

## II. INSTRUCTIONS:

1. This document is to be completed at the time the system is shifted to its current location (Clinical Laboratory) and setup for operation.
2. An authorized (Company) representative will check the system and enter the specific data related to installation, operational and performance qualification.
3. Employees of (customer) Clinical Laboratory will verify each result and sign the results. The members of the validation will carry this out.
4. All deviation from the normal specification to include any problems with installation will be noted under COMMENTS.

## II. SCOPE

This installation Qualification protocol is performed on the (Instrument Name). **Cobas c-311 S. No. 18L9-09**, located at **Redcliffe Lifetech Pvt. Ltd. Shanti Madhuvan Plaza, Delhi Gate Agra, U.P** This protocol defines the documentation that is used to evaluate the Instrument Installation in accordance with the manufacturer's specifications and Intended use. Successful completion of this protocol verifies that this instrument has been Installed, operated in accordance with the intended usage.

Installation checks are performed to verify that the instrument has been installed with proper connections and utilities.

Operational qualification will evaluate that the instrument have operational features available for the successful operation of instrument in accordance with the manufacturer's specifications.

Performance qualification will verify the actual functioning or performance of instrument.

#### IV. Certificate of Purchase Order compliance

I certify to the best of my knowledge, the instrument – Cobas c-311

S. No. 18L9-09 installed on..... 28/09/2023 ..., has been placed under agreement and is in compliance with the specifications of the agreement.

#### V. Equipment Description

|   | Instrument Identification                              | Verified by                             | Date       |
|---|--|---|------------|
| 1 | Equipment name: Cobas c-311                            | Mr. Deepak Patidar                      | 28/09/2023 |
| 2 | Model: Cobas c-311                                     | Mr. Deepak Patidar                      | 28/09/2023 |
| 3 | Marketed By:   | Roche Diagnostics India Private Limited | 28/09/2023 |
| 4 | Serial No:18L9-09                                      | Mr. Deepak Patidar                      | 28/09/2023 |
| 5 | Size:66cm(w);135cm(l);75cm(h)                          | Mr. Deepak Patidar                      | 28/09/2023 |
| 6 | Power:AC 224 V+/-10%;60Hz<br>Single Phase; Earthing 2V | Mr. Deepak Patidar                      | 28/09/2023 |

#### VI. Utilities

| S. No. | Utility   | Verified by        | Date       |
|--------|---|--------------------|------------|
| 1      | Environmental conditions as required.<br>( Free from dust, electrical and magnetic interference), Yes<br>Yes/No<br>Temperature: 25 degree Celsius<br>Humidity: 45-85% | Mr. Deepak Patidar | 28/09/2023 |
| 2      | Adequate space for installation: Yes / No<br>Yes  | Mr. Deepak Patidar | 28/09/2023 |
| 3      | Electrical Outlets:<br>Actual voltage on site (230V) Yes / No   | Mr. Deepak Patidar | 28/09/2023 |
| 4      | Grounded Yes Yes / No   | Mr. Deepak Patidar | 28/09/2023 |

|   |                       |     |          |                    |            |
|---|-----------------------|-----|----------|--------------------|------------|
| 5 | Connected through UPS | Yes | Yes / No | Mr. Deepak Patidar | 28/09/2023 |
| 6 | Stabilizer            | Yes | Yes / No | Mr. Deepak Patidar | 28/09/2023 |

**VII. The instrument has been checked for the following:**

| S. No. | Verification   | Verified by        | Date       |
|--------|--|--------------------|------------|
| 1      | Instrument is identified<br>Yes Yes / No                           | Mr. Deepak Patidar | 28/09/2023 |
| 2      | Manufacturer's specification are included<br>Yes Yes / No          | Mr. Deepak Patidar | 28/09/2023 |
| 3      | Accessories /consumables are listed<br>Yes Yes / No                | Mr. Deepak Patidar | 28/09/2023 |
| 4      | Equipment manual from the manufacturer<br>Yes Yes / No             | Mr. Deepak Patidar | 28/09/2023 |
| 5      | Manufacturer certificate of compliance is attached<br>Yes Yes / No | Mr. Deepak Patidar | 01/13/2021 |

**VIII. Accessories / Consumables**

The following accessories were supplied with the instrument. Check 'verified by' in case they are found to be in order. Separate list included.

| SNo. | Description     | Quantity           | Verified by        | Date       |
|------|-----------------|--------------------|--------------------|------------|
| 01   | As per the List | As per<br>The List | Mr. Deepak Patidar | 28/09/2023 |
|      |                 |                    |                    |            |
|      |                 |                    |                    |            |
|      |                 |                    |                    |            |



## IX. List of Manuals and Certificates

Supplier provides the following with the instrument:

|   |   |                      |
|---|---|----------------------|
| 1 | Operating Manual                                      | Available - Yes / No |
| 2 | Purchase order  | Available - Yes / No |
| 3 | Calibration certificate                               | Available - Yes / No |
| 4 | Software validation certificate                       | Available - Yes / No |
| 5 | Instrument / kit approval certificate                 | Available - Yes / No |
| 6 | Safety Instructions                                   | Available - Yes / No |
| 7 | Training Records                                      | Available - Yes / No |
| 8 | Certificate of Authorization/Training of the engineer | Available - Yes / No |
| 9 | If any other  | Available - Yes / No |

## X. Maintenance:

The instrument listed within this document will be placed under the control of purchasing institution with respect to proper maintenance procedures as detailed in the operator's manual. The maintenance procedures will be filed separately.

A trained analyst using the manuals provided with the instrumentation can perform simple maintenance. Upon expiration of the warranty period vendor will offer several level of maintenance agreements and performance testing services to assist you in maintaining GLP/GMP compliance.

Contacting your local representative and requesting the additional service agreement can supply additional information.

## XI. INSTALLATION PROCEDURE

A - Installation of Hardware and software

Follow the instructions mentioned in the installation guide.

B- Installation of Printer

Follow the instructions mentioned in the installation guide.

## XII. OPERATIONAL QUALIFICATION

a) Following features/ functions are available in the instrument as per manufacturer's specification and verified e.g. self-test, washer assays, quality control, test assay, maintenance checks.

| Test No. | Test Name           | Test Purpose                     | Verified       | Date       |
|----------|---------------------|----------------------------------|----------------|------------|
| 1.       | Quality Control     | To check the accuracy of results | Mr. Hari Singh | 05/09/2023 |
| 2.       | Maintainance        | To maintain the system           | Mr. Hari Singh | 05/09/2023 |
| 3.       | Calibration feature | Auto Calibration                 | Mr. Hari Singh | 05/09/2023 |
| 4.       | Test Assay          | Routine Biochemistry             | Mr. Hari Singh | 05/09/2023 |

### Certificate of Training:

#### Technician Training

This certifies that the Following Staff listed below have received basic user training for the system described.

| S. No. | Training Program      | Initials                     | Date       |
|--------|-----------------------|------------------------------|------------|
| 1      | Instrument Setup      | All technicians are present. | 05/09/2023 |
| 2      | System Operation      | All technicians are present  | 05/09/2023 |
| 3      | Basic Troubleshooting | All technicians are present  | 05/09/2023 |

Training given by: Mr. Hari Singh

## XII. PERFORMANCE QUALIFICATION

Performance qualification validates the test procedure performed on the new instrument.

Performance qualification not only validates instrument performance but also test procedure.

Following are the steps required to validate your instrument and method.

- 1- Run all levels of QC sample and verify the values with acceptable range given in the insert of quality control samples.
- 2- Run the precision for all the parameters 10 times.

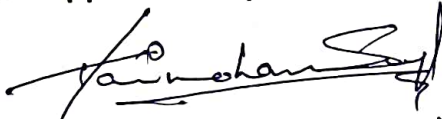
**QC Results - Pass/ Fail: PASS**

**PRECISION- Pass/ Fail: PASS**

**Validation procedures performed by**

**Name: Mr. Hari Singh**

**Designation: Application Specialist**

**Signature:** 

**Date:** 07/10/2023

**Company: Roche Diagnostics India Pvt. Ltd.**

**Validation procedures performed by Clinical Lab:**

**Name: Mr. Pavan Kushwah**

**Signature:**  

**Department: Biomedical Engineer.**

**Site: Redcliffe Lifetech Pvt. Ltd. Shanti Madhuvan Plaza, Delhi Gate Agra,  
U.P**

\*\*\*\*\*  
 \* HITACHI AUTOMATIC ANALYZER \*  
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NAME PCCC1 DATE 25/05/24 09:43:03  
 S.NO. C003083 073 OPERATOR ID bmserv  
 LOT 56497800

| TEST  | RESULT | UNIT  | EXPECTED VALUE  | ALARM |
|-------|--------|-------|-----------------|-------|
| CREJ2 | 1.0    | mg/dL | ( 0.92- 1.16)   |       |
| TP2   | 5.1    | g/dL  | ( 4.54- 5.34)   |       |
| ALB2  | 3.4    | g/dL  | ( 2.91- 3.71)   |       |
| ALTL  | 46     | U/L   | ( 45.3- 57.7)   |       |
| LDLC3 | 62     | mg/dL | ( 53.6- 74.0)   |       |
| GLUC3 | 102    | mg/dL | ( 92- 112)      |       |
| ASTL  | 44     | U/L   | ( 39.3- 50.1)   |       |
| HDLC4 | 30     | mg/dL | ( 25.6- 35.2)   |       |
| CHO2I | 103    | mg/dL | ( 94- 114)      |       |
| IRON2 | 110.74 | ug/dL | ( 96- 120)      |       |
| BILD2 | 0.858  | mg/dL | ( 0.796- 1.100) |       |
| CRP4  | 5.59   | mg/L  | ( 5.36- 7.00)   |       |
| UREAL | 39.8   | mg/dL | ( 36.2- 44.2)   |       |
| GGTI2 | 54     | U/L   | ( 47.6- 60.4)   |       |
| ALP2L | 98     | U/L   | ( 95- 119)      |       |
| UA2   | 4.5    | mg/dL | ( 4.21- 5.13)   |       |
| CA2   | 8.6    | mg/dL | ( 7.94- 9.30)   |       |
| UIBCI | 219    | ug/dL | ( 184- 244)     |       |
| TRIGL | 113    | mg/dL | ( 103- 127)     |       |
| BILT3 | 0.855  | mg/dL | ( 0.834- 1.062) |       |
| PHOS2 | 3.62   | mg/dL | ( 3.20- 3.92)   |       |
| CRPHS | 7.92   | mg/L  | ( 7.2- 8.4)     |       |

*Q. J. H.*  
 25/05/24

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 \* HITACHI AUTOMATIC ANALYZER \*  
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NAME PCCC1 DATE 25/05/24 09:43:03  
 S.NO. C003083 073 OPERATOR ID bmserv  
 LOT 56497800

| TEST | RESULT | UNIT   | EXPECTED VALUE | ALARM |
|------|--------|--------|----------------|-------|
| Na   | 112    | mmol/L | ( 105- 117)    |       |
| K    | 3.50   | mmol/L | ( 3.28- 3.68)  |       |
| Cl   | 84.0   | mmol/L | ( 80.0- 90.4)  |       |

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 \* HITACHI AUTOMATIC ANALYZER \*  
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NAME PCCC2 DATE 25/05/24 09:43:03  
 S.NO. C004083 074 OPERATOR ID bmserv  
 LOT 59539300

| TEST  | RESULT | UNIT  | EXPECTED VALUE | ALARM |
|-------|--------|-------|----------------|-------|
| CREJ2 | 3.8    | mg/dL | ( 3.24- 4.12)  |       |
| TP2   | 8.5    | g/dL  | ( 7.66- 8.98)  |       |
| ALB2  | 5.3    | g/dL  | ( 4.68- 5.96)  |       |
| ALTL  | 119    | U/L   | ( 114- 146)    |       |
| LDLC3 | 100    | mg/dL | ( 88- 120)     |       |
| GLUC3 | 243    | mg/dL | ( 221- 269)    |       |
| ASTL  | 139    | U/L   | ( 124- 160)    |       |
| HDLC4 | 52     | mg/dL | ( 43.8- 60.6)  |       |
| CHO2I | 168    | mg/dL | ( 153- 185)    |       |
| IRON2 | 248.07 | ug/dL | ( 214- 274)    |       |
| BILD2 | 2.454  | mg/dL | ( 2.28- 3.16)  |       |
| CRP4  | 50.37  | mg/L  | ( 44.7- 58.3)  |       |
| UREAL | 121.9  | mg/dL | ( 112- 136)    |       |
| GGTI2 | 230    | U/L   | ( 199- 255)    |       |
| ALP2L | 236    | U/L   | ( 228- 292)    |       |
| UA2   | 9.4    | mg/dL | ( 8.83- 10.79) |       |
| CA2   | 13.3   | mg/dL | ( 12.3- 14.3)  |       |
| UIBCI | 246    | ug/dL | ( 228- 304)    |       |
| TRIGL | 211    | mg/dL | ( 192- 236)    |       |
| BILT3 | 3.398  | mg/dL | ( 3.26- 4.14)  |       |
| PHOS2 | 8.21   | mg/dL | ( 7.33- 8.97)  |       |

*Qaida  
25/05/24*

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 \* HITACHI AUTOMATIC ANALYZER \*  
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NAME PCCC2 DATE 25/05/24 09:43:03  
 S.NO. C004083 074 OPERATOR ID bmserv  
 LOT 59539300

| TEST | RESULT | UNIT   | EXPECTED VALUE | ALARM |
|------|--------|--------|----------------|-------|
| Na   | 136    | mmol/L | ( 128- 144)    |       |
| K    | 7.01   | mmol/L | ( 6.63- 7.47)  |       |
| Cl   | 102.4  | mmol/L | ( 97- 109)     |       |

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\* HITACHI AUTOMATIC ANALYZER \*  
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NAME PCA1N DATE 25/05/24 09:43:03  
S.NO. C011083 075 OPERATOR ID bmserv  
LOT 71835800

| TEST  | RESULT   | UNIT   | EXPECTED VALUE | ALARM |
|-------|----------|--------|----------------|-------|
| HB-W3 | 10.045 H | mmol/L | ( 0- 0)        |       |
| A1-W3 | 0.361 H  | mmol/L | ( 0- 0)        |       |
| HbA1c | 5.44     | %      | ( 4.98- 6.34)  |       |

*Quik*  
25/05/24

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\* HITACHI AUTOMATIC ANALYZER \*  
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NAME PCA1P DATE 25/05/24 09:43:03  
S.NO. C012083 076 OPERATOR ID bmserv  
LOT 71835900

| TEST  | RESULT   | UNIT   | EXPECTED VALUE | ALARM |
|-------|----------|--------|----------------|-------|
| HB-W3 | 10.207 H | mmol/L | ( 0- 0)        |       |
| A1-W3 | 0.900 H  | mmol/L | ( 0- 0)        |       |
| HbA1c | 10.22    | %      | ( 9.1- 11.5)   |       |

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\* HITACHI AUTOMATIC ANALYZER \*  
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NAME RFCO2 DATE 25/05/24 09:43:03  
S.NO. C013083 078 OPERATOR ID bmserv  
LOT 73131500

| TEST  | RESULT | UNIT  | EXPECTED VALUE | ALARM |
|-------|--------|-------|----------------|-------|
| RF-II | 55     | IU/mL | ( 46.2- 56.6)  |       |