



KAISER PERMANENTE®

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BECKMAN COULTER AU680 CALIBRATION

Purpose This section contains the necessary information to perform calibration on the Beckman Coulter AU680 Chemistry Analyzer.

Scope This section will provide the operator a detailed instruction on how to perform calibration before starting analysis, for new reagent lot, after maintenance procedures or as needed for troubleshooting purposes.

Policy The analyzer must have a valid in-date calibration prior to QC and patient testing. Assay calibration must be performed when you switch to a new reagent lot, or to a new reagent shipment within the same lot number, when the active calibration has expired, when quality control data indicates calibration is necessary, and when a major system component has been repaired or replaced.

Materials and Supplies

Lyophilized Chemistry Calibrator 1
Lyophilized Chemistry Calibrator 2
CRP Latex Calibrator
Serum Protein Multi-Calibrator 1
Acetaminophen Calibrator
Valproic Acid Calibrator
Digoxin Calibrator
Vancomycin Calibrator
Gentamicin Calibrator
Salicylate Calibrator
Carbamazepine Calibrator
Phenobarbital Calibrator
Phenytoin Calibrator
Theophylline Calibrator
Tobramycin Calibrator
Beckman Multi Calibrator

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Materials and Supplies

Urine Chemistry Calibrator
Ethyl Alcohol Calibrator
Chloride/CO₂ Standard 2340-C and 2340-E
Beckman Coulter ISE Low Serum Standard and ISE High Serum Standard
Beckman Coulter ISE Low Urine Standard and ISE High Urine Standard

Safety or Special Safety Precautions

All laboratory employees are expected to maintain a safe working environment and an injury-free workplace. Laboratory employees are responsible for their own safety and the safety of others and adhering to all departmental and medical center safety policies and procedures.

- For standard precautions and safety practices in the laboratory; see LAMC-PPP-0123, specifically, but not limited to, equipment safety, proper body mechanics, sharps exposure and proper use of personal protective equipment (PPE).
 - For Universal Body Substance precautions, see LGAMC-PPP-0128, specifically, but not limited to, exposure to body fluids.
 - For proper hand washing, see LAMC-PPP-0132, specifically, not limited to, proper hand washing.
 - For proper infection control, see LAMC-PPP-0127, specifically, but not limited to, proper use of gloves.
 - For proper handling of regular and infectious waste, see LAMC-PPP-0129, specifically, but not limited to, proper disposal of regular and biohazardous waste.
 - For proper cleaning of work area, see LAMC-PPP-0130 – Cleaning Work Areas.
 - For proper handling of chemicals and reagents, see the Chemical Hygiene Plan.
 - For proper storage and disposal of chemical hazardous waste, see LAMC-PPP-0134.
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Procedure

Perform Reagent Blanks/Calibrations Using the STAT Table

Step	Action
1	Select Home > STAT Status jump button > Calibration button
2	Select sample type requiring calibration from the Type drop-down
3	Select Auto CAL/Requisition F3 to requisition the automatic analyzer calibration. <i>Optional: Select Start Entry F1 to make changes. Repeat for each sample type. Select Entry F1</i>
4	Select Display Cup Set F5 to view calibrators and volume required.
5	Open small STAT table cover. Load the required calibrators in any position on the STAT table with barcodes facing out. Use the TABLE ROTATION/DIAG button to rotate the table, if necessary.
6	Select Close .
7	Place the reagent blank DI water in position RB1 on the STAT table. Close small STAT table cover then select Start .

Perform Reagent Blanks/Calibrations Using the Rack Supply Belt

Step	Action
1	Select Home > Rack Requisition Sample > Calibration
2	Select the "Type" drop down menu to choose sample type Serum.
3	Optional: Select Start Entry F1 for additional tests. To select a specific test(s), Select "RB" or "CAL" column to the right of the test name.
4	Select Entry F1 to register additional manual requisitions.
5	Repeat steps 2-4 to requisition for other sample type, if necessary.
6	Select Display Cup Set F5 to view the calibration load list. Use the scroll down to view all the racks needed for calibration.
7	Load your calibrator(s) in the appropriate yellow rack. Always use a blue rack (Reagent Blank) to precede a yellow rack.
8	Close the Display Cal Racks screen.
9	Load the racks on the rack supply belt.
10	Select Start
11	Calibration report will print automatically upon completion.
12	Review calibration report, perform and document any corrective action if applicable.

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Procedure ISE Calibration

Step	Action
1	Load the Standards in the Hitachi cups of the STAT table in the following labeled positions. <ul style="list-style-type: none">• S-H (Serum-High standard)• S-L (Serum-Low standard)• U-H (Urine-High standard)• U-L (Urine-Low standard) Note: Press the TABLE ROTATION/DIAG button to rotate the table to access the required position.
2	Select Home
3	Select the Analyzer Maintenance jump button.
4	Select the ISE Maintenance button.
5	Select the Calibration tab.
6	Select Serum/Urine Start button.
7	Select OK .
8	When the ISE Calibration is complete, verify Slope and MID solution factor results are in the range for sample types calibrated.
9	Select Home .
10	Perform and document corrective action if applicable.

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Controlled Documents

The controlled documents are as follows:

Document No.	Name of Documents
LAMC-PPP-0338	Beckman Coulter AU680 Quality Control
LAMC-PPP-0123	Safety Practices
LAMC-PPP-0127	Infection Control
LAMC-PPP-0128	Universal Body Substance Precaution
LAMC-PPP-0129	Handling of Regular and Infectious Waste
LAMC-PPP-0130	Cleaning Work Areas
LAMC-PPP-0132	Hand-washing Policy
LAMC-PPP-0134	Storage and Disposal of Chemical Hazardous Waste

Non-Controlled Documents

The non-controlled documents are as follows:

Document No.	Document Name
	AU680 User's Guide

Author

Aida R. Legaspi, CLS

Signature Manifest

Document Number: LAMC-PPP-0340
Title: Beckman Coulter AU680 Calibration

Revision: 01

All dates and times are in Pacific Standard Time.

Review: LAMC-PPP-0340 01 Beckman Coulter AU680 Calibration

Review

Name/Signature	Title	Date	Meaning/Reason
Julie Toti (K084521)	DIR AREA LAB	30 Nov 2017, 11:38:10 AM	Reviewed

Quick Approval

Approve Now

Name/Signature	Title	Date	Meaning/Reason
Rosalie Fajardo (K247378)	MGR AREA LAB	06 Apr 2018, 12:27:30 PM	Approved

Review: LAMC-PPP-0340 01 Beckman Coulter AU680 Calibration

Review

Name/Signature	Title	Date	Meaning/Reason
Julie Toti (K084521)	DIR AREA LAB	28 May 2019, 10:42:23 AM	Reviewed