December 15, 2017

Beckman Coulter, Inc.
Teresa Wong
Senior Regulatory Analyst
1584 Enterprise Blvd.
West Sacramento, California 95691

Re: K172337
  Trade/Device Name: MicroScan Dried Gram Negative MIC/Combo Panels with
  Ceftazidime/Avibactam (0.25/4 - 64/4 µg/mL)
  Regulation Number: 21 CFR 866.1640
  Regulation Name: Antimicrobial susceptibility test powder
  Regulatory Class: Class II
  Product Codes: LTT, JWY, LRG, LTW
  Dated: August 1, 2017
  Received: August 2, 2017

Dear Teresa Wong:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801 and Part 809); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR
Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (https://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/) and CDRH Learn (http://www.fda.gov/Training/CDRHLearn). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (http://www.fda.gov/DICE) for more information or contact DICE by email (DICE@fda.hhs.gov) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

Ribhi Shawar -S
For
Uwe Scherf, M.Sc., Ph.D.
Director
Division of Microbiology Devices
Office of In Vitro Diagnostics
and Radiological Health
Center for Devices and Radiological Health

Enclosure
## Indications for Use

### 510(k) Number (if known)

K172337

### Device Name

MicroScan Dried Gram-Negative MIC/Combo Panels with Ceftazidime/Avibactam (0.25/4 – 64/4 μg/mL)

### Indications for Use (Describe)

The MicroScan Dried Gram-Negative MIC/Combo Panel is used to determine quantitative and/or qualitative antimicrobial agent susceptibility of colonies grown on solid media of rapidly growing aerobic and facultative anaerobic gram-negative bacilli. After inoculation, panels are incubated for 16 – 20 hours at 35°C +/- 1°C in a non-CO2 incubator, and read either visually or with MicroScan instrumentation, according to the Package Insert.

This particular submission is for the addition of the antimicrobial ceftazidime/avibactam at concentrations of 0.25/4 to 64/4 μg/mL to the test panel.

The gram-negative organisms which may be used for ceftazidime/avibactam susceptibility testing in this panel are:

- Citrobacter freundii complex
- Citrobacter koseri
- Enterobacter aerogenes
- Enterobacter cloacae
- Escherichia coli
- Klebsiella oxytoca
- Klebsiella pneumoniae
- Morganella morganii
- Proteus mirabilis
- Pseudomonas aeruginosa
- Providencia rettgeri
- Providencia stuartii
- Serratia marcescens

### Type of Use (Select one or both, as applicable)

- [x] Prescription Use (Part 21 CFR 801 Subpart D)
- [ ] Over-The-Counter Use (21 CFR 801 Subpart C)

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**CONTINUE ON A SEPARATE PAGE IF NEEDED.**

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510(k) Summary

510(k) Submission Information:
Device Manufacturer: Beckman Coulter
Contact name: Teresa Wong, Senior Analyst Regulatory Affairs
Phone: 916-374-2432
Fax: 916-374-2119
Date prepared: October 27, 2017
Product Name: Microdilution Minimum Inhibitory Concentration (MIC) Panels
Trade Name: MicroScan Dried Gram-Negative MIC/Combo Panels with Ceftazidime/Avibactam
(0.25/4 – 64/4 µg/mL)
Intended Use: To determine antimicrobial agent susceptibility
Classification: Class II
Product Code: LTT
510(k) Notification: New antimicrobial agent – Ceftazidime/Avibactam
Predicate device: MicroScan Dried Gram-Negative MIC/Combo Panels – Imipenem (K162740)

510(k) Summary:
MicroScan Dried Gram-Negative MIC/Combo Panels are designed for use in determining quantitative and/or qualitative antimicrobial agent susceptibility of colonies grown on solid media of rapidly growing aerobic and facultative anaerobic gram-negative bacilli.

The antimicrobial susceptibility tests are miniaturizations of the broth dilution susceptibility test that have been diluted in broth and dehydrated. Various antimicrobial agents are diluted in broth to concentrations bridging the range of clinical interest. Panels are rehydrated with water after inoculation with a standardized suspension of the organism. After incubation in a non-CO2 incubator for 16-20 hours, the minimum inhibitory concentration (MIC) for the test organism is read by determining the lowest antimicrobial concentration showing inhibition of growth.

The proposed MicroScan Dried Gram-Negative MIC/Combo Panel demonstrated substantially equivalent performance when compared with an CLSI frozen Reference Panel, as defined in the FDA document “Class II Special Controls Guidance Document: Antimicrobial Susceptibility Test (AST) Systems; Guidance for Industry and FDA”, dated August 28, 2009. The Premarket Notification (510[k]) presents data in support of the MicroScan Dried Gram-Negative MIC/Combo Panel with ceftazidime/avibactam.

The external evaluations were conducted with fresh and stock Efficacy isolates and stock Challenge strains. The external evaluations were designed to confirm the acceptability of the proposed Dried Gram-Negative Panel by comparing its performance with a CLSI frozen Reference panel. The Dried Gram-Negative Panel demonstrated acceptable performance with an overall Essential Agreement of 95% for Enterobacteriaceae and 96.3% for Pseudomonas aeruginosa when using our most common inoculum and read method for ceftazidime/avibactam when compared with the frozen Reference panel.

Inoculum and instrument reproducibility testing demonstrated acceptable reproducibility and precision with ceftazidime/avibactam, regardless of which inoculum method (i.e., Turbidity or Prompt™), or instrument (autoSCAN-4 instrument or WalkAway system) was used.

Quality Control testing demonstrated acceptable results for ceftazidime/avibactam.

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