

K121546



NOV 20 2012

510(k) SUMMARY

VITEK® 2 Gram Negative Doxycycline

510(k) Submission Information:

Submitter's Name: bioMérieux, Inc.
Address: 595 Anglum Road
Hazelwood, MO 63042
Contact Person: Jennifer Chia-Hsuan Lin
Regulatory Affairs Specialist
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Date of Preparation: May 24, 2012

B. Device Name:

Formal/Trade Name: VITEK® 2 Gram Negative Doxycycline
Classification Name: 21 CFR 866.1645
Fully Automated Short-Term Incubation Cycle Antimicrobial
Susceptibility System
Product Code LON
Common Name: VITEK® 2 AST-GN Doxycycline

C. Predicate Device: VITEK® 2 Gram Negative Imipenem (K103752)

D. 510(k) Summary:

VITEK® 2 Gram Negative Doxycycline is designed for antimicrobial susceptibility testing of *Gram-negative bacilli*. VITEK 2 GN Doxycycline is a quantitative test intended for use with the VITEK® 2 and VITEK® 2 Compact Systems as a laboratory aid in the determination of *in vitro* susceptibility to antimicrobial agents. Doxycycline has been shown to be active against most strains of the microorganisms listed below, according to the FDA label for this antimicrobial.

Active *in vitro* and in clinical infections

Acinetobacter species
Enterobacter aerogenes
Escherichia coli
Klebsiella species
Shigella species

The VITEK 2 Antimicrobial Susceptibility Test (AST) is intended to be used with the VITEK 2 and VITEK 2 Compact Systems for the automated quantitative or qualitative susceptibility testing of isolated colonies for the most clinically significant aerobic gram-negative bacilli, *Staphylococcus spp.*, *Enterococcus spp.*, *Streptococcus spp.*, *S. pneumoniae*, and clinically significant yeast.

bioMérieux, Inc.

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The antimicrobial presented in VITEK® 2 AST-GN Cards is in concentrations equivalent by efficacy to standard method concentrations in µg/mL. The VITEK® 2 AST Cards are essentially miniaturized versions of the doubling dilution technique for determining the minimum inhibitory concentration (MIC) microdilution methodology.

The isolate to be tested is diluted to a standardized concentration in 0.45 - 0.50% saline before being used to rehydrate the antimicrobial medium within the card. The VITEK® 2 automatically fills, seals and places the card into the incubator/reader. The VITEK® 2 Compact has a manual filling and sealing operation. The VITEK® 2 monitors the growth of each well in the card over a defined period of time (up to 18 hours). At the completion of the incubation cycle, a report is generated that contains the MIC value along with the interpretive category result for each antimicrobial contained on the card.

VITEK® 2 GN Doxycycline demonstrated substantially equivalent performance when compared with the CLSI broth microdilution reference method, as defined in the FDA Class II Special Controls Guidance Document: Antimicrobial Susceptibility Test (AST) Systems; Guidance for Industry and FDA. Issued August 28, 2009.

The Premarket Notification (510[k]) presents data in support of VITEK® 2 GN Doxycycline. An external evaluation was conducted with fresh and stock clinical isolates, as well as a set of challenge strains. The external evaluations were designed to confirm the acceptability of VITEK® 2 GN Doxycycline by comparing its performance with the CLSI broth microdilution reference method incubated at 24 hrs. The data is representative of performance on both the VITEK® 2 and VITEK® 2 Compact instrument platforms. VITEK® 2 GN Doxycycline demonstrated acceptable performance of 97.6% overall Essential Agreement and 95.1% overall Category Agreement with the reference method. Reproducibility and Quality Control demonstrated acceptable results using both the VITEK 2 and VITEK 2 Compact instrument systems.



Food and Drug Administration
10903 New Hampshire Avenue
Document Control Center – WO66-G609
Silver Spring, MD 20993-002

bioMerieux, Inc.
C/O Jennifer Chia-Hsuan Lin, Regulatory Affairs Specialist
595 Anglum Road
Hazelwood MO 63042

NOV 20 2012

Re: K121546
VITEK[®]2 Gram Negative Doxycycline
Regulation Number: 21 CFR 866.1645
Regulation Name: Fully Automated Short-term Incubation Cycle Antimicrobial Susceptibility System
Regulatory Class: Class II
Product Code: LON
Dated: October 19, 2012
Received: October 22, 2012

Dear Ms. Lin:

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.

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); 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.

If you desire specific advice for your device on our labeling regulation (21 CFR Parts 801 and 809), please contact the Office of *In Vitro* Diagnostics and Radiological Health at (301) 796-5450. 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.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,

Sally A. Hojvat

Sally A. Hojvat, 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): K121546/5001

Device Name: VITEK® 2 Gram Negative Doxycycline
(≤0.5 – ≥16 µg/mL)

Indications For Use:

VITEK® 2 Gram Negative Doxycycline is designed for antimicrobial susceptibility testing of Gram-negative bacilli. VITEK 2 Gram Negative Doxycycline is a quantitative test intended for use with the VITEK® 2 and VITEK® 2 Compact Systems as a laboratory aid in the determination of *in vitro* susceptibility to antimicrobial agents. Doxycycline has been shown to be active against most strains of the microorganisms listed below, according to the FDA label for this antimicrobial.

Active *in vitro* and in clinical infections

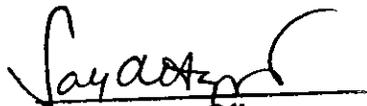
Acinetobacter species
Enterobacter aerogenes
Escherichia coli
Klebsiella species
Shigella species

The VITEK® 2 Antimicrobial Susceptibility Test (AST) is intended to be used with the VITEK® 2 System for the automated quantitative or qualitative susceptibility testing of isolated colonies for the most clinically significant aerobic gram-negative bacilli, *Staphylococcus spp.*, *Enterococcus spp.*, *Streptococcus spp.*, *S. pneumoniae*, and clinically significant yeast.

Prescription Use X AND/OR Over-The-Counter Use _____
(Part 21 CFR 801 Subpart D) (21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of In Vitro Diagnostic Devices (OIVD)


Division Sign-Off

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Office of In Vitro Diagnostic
Device Evaluation and Safety

510(k) K121546/5001