

K061536

JUL 18 2006

## 510(k) Summary

### 510(k) Submission Information:

Device Manufacturer: Dade Behring Inc.  
Contact name: Maureen Mende, Regulatory Affairs Group Manager  
Fax: 916-374-3144  
Date prepared: May 30, 2006  
Product Name: Microdilution Minimum Inhibitory Concentration (MIC) Panels  
Trade Name: MicroScan<sup>®</sup> Dried Gram Negative MIC/Combo Panels  
Intended Use: To be used in the screening of *Escherichia coli*, *Klebsiella* spp. and *Proteus mirabilis* suspected of producing Extended-Spectrum Beta-Lactamases.  
To be used in the confirmation of Extended-Spectrum Beta-Lactamase production in *Escherichia coli*, *Klebsiella* spp. and *Proteus mirabilis*.  
510(k) Notification: Modification to k013423- ESBL Screen  
Modification to k020037- ESBL Confirmation  
Predicate device: MicroScan<sup>®</sup> Dried Gram Negative Panels

### 510(k) Summary:

MicroScan<sup>®</sup> Dried Gram Negative MIC/Combo Panels are designed for use in determining quantitative and/or qualitative antimicrobial agent susceptibility for Gram Negative organisms and screening for suspected ESBL production in *E. coli*, *Klebsiella* spp., and *P. mirabilis*.

MicroScan<sup>®</sup> ES $\beta$ L plus ESBL Confirmation Panel is designed for use in determining quantitative and/or qualitative antimicrobial agent susceptibility for Gram Negative organisms and confirmation of ESBL production in *E. coli*, *Klebsiella* spp., and *P. mirabilis*.

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-CO<sub>2</sub> incubator at 35 °C for a minimum of 16 hours, the minimum inhibitory concentration (MIC) for the test organism is determined by observing the lowest antimicrobial concentration showing inhibition of growth.

The antimicrobics: cefpodoxime, ceftazidime, aztreonam, cefotaxime and ceftriaxone were cleared by FDA in September, 2001 (k013423) for use as a screen for suspected ESBL-producing *E. coli*, *K. oxytoca* and *K. pneumoniae* on MicroScan<sup>®</sup> Dried Gram Negative Panels. This Premarket Notification 510(k) presents data in support of a request for a new intended use (screening of suspected *P. mirabilis* extended-spectrum beta-lactamases) similar to that described in the CLSI document M100-S16 for the following applicable antimicrobial agents: cefpodoxime, ceftazidime, and cefotaxime.

The antimicrobics: ceftazidime, ceftazidime/clavulanic acid, cefotaxime and cefotaxime/clavulanic acid have been cleared for confirmation of suspected extended-spectrum beta-lactamases with *E. coli*, *K. oxytoca* and *K. pneumoniae* via Premarket Notification submission (k020037). This Premarket Notification 510(k) presents data in support of a request for a new intended use (confirmation of suspected *P. mirabilis* extended-spectrum beta-lactamases) similar to that described in the CLSI document M100-S16 for ceftazidime, and cefotaxime alone and in combination with clavulanic acid.

Efficacy and Challenge studies with MicroScan<sup>®</sup> Dried Gram Negative panel with cefpodoxime, ceftazidime, ceftazidime/clavulanic acid, cefotaxime and cefotaxime/clavulanic acid were conducted on both fresh and stock isolates and stock challenge strains. The Design Validation studies were designed to confirm the acceptability of these antimicrobial agents for screening (Cpd, Caz, Cft) and confirmation (Caz, Caz /CA, Cft, Cft/CA) of suspected ESBL production with *P. mirabilis* by comparing the panel susceptibility results against the CLSI frozen Reference result or the molecular characterization result (Challenge). The dried Test panel antimicrobial agents demonstrated an overall Agreement of > 90% for both screen and confirmation with the ESBL and non-ESBL-producing strains.

Inoculation method reproducibility testing with the MicroScan<sup>®</sup> Dried Gram Negative panel with cefpodoxime, ceftazidime, ceftazidime/clavulanic acid, cefotaxime and cefotaxime/clavulanic acid demonstrated acceptable reproducibility regardless of which inoculation method (i.e., Turbidity and Prompt) was used.

The MicroScan<sup>®</sup> Dried Gram Negative panel with cefpodoxime, ceftazidime, ceftazidime/clavulanic acid, cefotaxime and cefotaxime/clavulanic acid antimicrobial agents demonstrated acceptable Quality Control throughout each phase of the ESBL evaluation.



Food and Drug Administration  
2098 Gaither Road  
Rockville MD 20850

Ms. Maureen Mende  
Regulatory Affairs Group Manager  
Dade Behring Inc.  
2040 Enterprise Blvd.  
West Sacramento, CA 95691

**JUL 18 2006**

Re: k061536  
Trade/Device Name: MicroScan<sup>®</sup> Dried Gram Negative MIC/Combo Panels with  
Cefpodoxime (0.015-64 µg/ml), Ceftazidime (0.5-128 µg/ml),  
Ceftazidime/Clavulanic acid (0.12/4-32/4 µg/ml),  
Cefotaxime (0.5-128 µg/ml) and Cefotaxime/Clavulanic acid  
(0.12/4-32/4 µg/ml)  
Regulation Number: 21 CFR 866.1640  
Regulation Name: Antimicrobial Susceptibility Test  
Regulatory Class: Class II  
Product Code: JWY, LRG, LTT  
Dated: May 30, 2006  
Received: June 2, 2006

Dear Ms. Mende:

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 such additional controls. Existing major regulations affecting your device can be found in Title 21, Code of Federal Regulations (CFR), Parts 800 to 895. 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 Parts 801 and 809); and good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820).

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific information about the application of labeling requirements to your device, or questions on the promotion and advertising of your device, please contact the Office of In Vitro Diagnostic Device Evaluation and Safety at (240)276-0450. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Sally A. Hojvat", with a long horizontal flourish extending to the right.

Sally A. Hojvat, M.Sc., Ph.D.  
Director  
Division of Microbiology Devices  
Office of *In Vitro* Diagnostic Device  
Evaluation and Safety  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known): K061536

**Device Name:** MicroScan<sup>®</sup> Dried Gram Negative MIC/Combo Panels with cefpodoxime (0.015-64µg/ml), ceftazidime (0.5-128 µg/ml), ceftazidime/clavulanic acid (0.12/4-32/4 µg/ml), cefotaxime (0.5-128 µg/ml) and cefotaxime/clavulanic acid (0.12/4-32/4 µg/ml)

### Indications For Use:

The MicroScan<sup>®</sup> Dried Gram Negative Panel is designed for use in the determination of antimicrobial susceptibilities of colonies grown on solid media of rapidly growing gram negative bacilli and screening for suspected ESBL production in *E. coli*, *Klebsiella* spp and *P. mirabilis*.

The MicroScan<sup>®</sup> ESBL *plus* Dried ESBL Confirmation Panel is designed for use in the determination of antimicrobial susceptibilities of colonies grown on solid media of rapidly growing gram negative bacilli and for the detection of ESBL production in *E. coli*, *Klebsiella* spp and *P. mirabilis*.

After inoculation, panels are incubated for a minimum of 16 hours at 35°C in a non-CO<sub>2</sub> incubator, and read visually, according to the Package Insert.

This particular submission is for the addition of *P. mirabilis* to the intended use of the antimicrobics: cefpodoxime (0.015-64 µg/ml), ceftazidime (0.5-128 µg/ml) and cefotaxime (0.5-128 µg/ml) for ESBL screening, and for the antimicrobics ceftazidime (0.5-128 µg/ml), ceftazidime/clavulanic acid (0.12/4-32/4 µg/ml), cefotaxime (0.5-128 µg/ml) and cefotaxime/clavulanic acid (0.12/4-32/4 µg/ml) for ESBL confirmation.

The Gram Negative organisms which may be used for screening of suspected of ESBL production in this panel are:

*Escherichia coli*  
*Klebsiella oxytoca*  
*Klebsiella pneumoniae*  
*Proteus mirabilis*

The Gram Negative organisms which may be used for confirmation of ESBL production in this panel are:

*Escherichia coli*  
*Klebsiella oxytoca*  
*Klebsiella pneumoniae*  
*Proteus mirabilis*

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Division Sign-Off

Office of In Vitro Diagnostic  
Evaluation and Safety ix

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Prescription Use  X   
(Part 21 CFR 801 Subpart D)

AND/OR

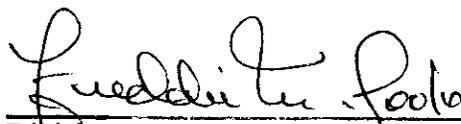
Over-The-Counter Use \_\_\_\_\_  
(21 CFR 807 Subpart C)

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

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Evaluation and Safety

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