510(k) Summary: Oral Fluid Methamphetamine Assay

Introduction

According to the requirements of 21 CFR 807.92, the following information provides sufficient detail to understand the basis for a determination of substantial equivalence.

Submitter

Roche Diagnostics
9115 Hague Rd.
Indianapolis, IN 46250
317-521-3742

Contact Person: Michelle Neff
Date Prepared: February 9, 2011

Device Name

Proprietary name: Oral Fluid Methamphetamine Assay

Common name: Methamphetamine test system

Classification name: Gas Chromatography, Methamphetamine

Product Code: LAF

Device Description

The DAT oral fluids assays are based on the kinetic interaction of microparticles in a solution (KIMS) technology. The DAT oral fluids assays are qualitative and semi-quantitative. In the absence of sample drug, soluble drug conjugates bind to antibody-bound microparticles, causing formation of particle aggregates. As the aggregation reaction proceeds in the absence of sample drug, the absorbance increases. When an oral fluid sample contains the drug in question, this drug competes with the drug derivative conjugate for microparticle-bound antibody. Antibody bound to sample drug is no longer available to promote particle aggregation, and subsequent particle lattice formation is inhibited. The presence of sample drug diminishes the increasing absorbance in proportion to the concentration of drug in the sample. Sample drug content is determined relative to the value obtained for a known cutoff concentration of drug.

Multi-analyte calibrator and control solutions are prepared from NIST traceable, commercially available solutions. A stock solution is prepared gravimetrically and verified by LC/MS/MS. The product calibrators are prepared gravimetrically in a synthetic oral fluid matrix at the following concentrations: 0, 20, 40, 80, 160, and 320 ng/mL. Controls are prepared gravimetrically in a synthetic oral fluid matrix at concentrations ±50% of the cutoff. All calibrator and controls concentrations are verified by LC/MS/MS.
Intended Use
DAT Oral Fluid Methamphetamine (OFMA) is an in vitro diagnostic test for the qualitative and semiquantitative detection of methamphetamine in human oral fluid at a cutoff concentration of 120 ng/mL in neat oral fluid. The specimen must be collected exclusively with the Intercept® Oral Specimen Collection Device. Semiquantitative test results may be obtained that permit laboratories to assess assay performance as part of a quality control program and to estimate a dilution of the specimen for confirmation by a confirmatory method such as LC/MS/MS.

DAT Oral Fluid Methamphetamine provides only a preliminary analytical test result. A more specific alternate chemical method must be used in order to obtain a confirmed analytical result. Chromatography/mass spectrometry is the preferred confirmatory method. Clinical consideration and professional judgment should be applied to any drug of abuse test result, particularly when preliminary positive results are used.

Comparison to Predicate Device
The Oral Fluid Methamphetamine assay is substantially equivalent to other products in commercial distribution intended for similar use. Most notably, we claim substantial equivalence to the currently marketed Methamphetamine Intercept® Micro-Plate EIA assay (K993208).

<table>
<thead>
<tr>
<th>Feature</th>
<th>Roche Oral Fluid Methamphetamines Assay</th>
<th>Predicate Device: Methamphetamine Intercept® MICRO-PLATE EIA (K993208)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methodology</td>
<td>KIMS, Kinetic interaction of microparticles in solution</td>
<td>Competitive micro-plate immunoassay</td>
</tr>
<tr>
<td>Sample Type</td>
<td>Oral Fluid</td>
<td>Oral Fluid</td>
</tr>
<tr>
<td>Intended Use</td>
<td>Qualitative and semi-quantitative detection of methamphetamine</td>
<td>Qualitative detection of methamphetamine</td>
</tr>
<tr>
<td>Cutoff</td>
<td>120 ng/mL in Neat Oral Fluid</td>
<td>40 ng/mL when oral fluid collected with the Oral Specimen Collection Device</td>
</tr>
<tr>
<td>Controls</td>
<td>Synthetic oral fluid matrix: Zero, Negative (.5X), and Positive (1.5X)</td>
<td>Synthetic oral fluid matrix: Negative (.5X) and Positive (2X)</td>
</tr>
<tr>
<td>Calibrator</td>
<td>Synthetic oral fluid matrix: Zero, .5X, Cutoff, 2X, 4X, and 8X</td>
<td>Synthetic oral fluid matrix: Zero, Cutoff</td>
</tr>
</tbody>
</table>
Roche Diagnostics
c/o Ms. Michelle Lee Neff
Regulatory Affairs Principal
9115 Hague Road, PO Box 50416
Indianapolis, IN, 46250-0416

Re: k093884
Trade Name: Oral Fluid Methamphetamine Assay
Regulation Number: 21 CFR 862.3610
Regulation Name: Methamphetamine Test System
Regulatory Class: Class II
Product Code: LAF, DKB, DIF
Dated: January 07, 2011
Received: January 24, 2011

Dear Ms. Neff:

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); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); and good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820).
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* Diagnostic Device Evaluation and Safety 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,

Signed

Courtney Harper, Ph.D.
Director
Division of Chemistry and Toxicology
Office of *In Vitro* Diagnostic Device Evaluation and Safety
Center for Devices and Radiological Health

Enclosure
510(k) Number (if known): k093884

Device Name: DAT Oral Fluid Methamphetamine

Indications for Use:

DAT Oral Fluid Methamphetamine (OFMA) is an in vitro diagnostic test for the qualitative and semiquantitative detection of methamphetamine in human oral fluid at a cutoff concentration of 120 ng/mL in neat oral fluid. The specimen must be collected exclusively with the Intercept® Oral Specimen Collection Device. Semiquantitative test results may be obtained that permit laboratories to assess assay performance as part of a quality control program and to estimate a dilution of the specimen for confirmation by a confirmatory method such as LC/MS/MS.

DAT Oral Fluid Methamphetamine provides only a preliminary analytical test result. A more specific alternate chemical method must be used in order to obtain a confirmed analytical result. Chromatography/mass spectrometry is the preferred confirmatory method. Clinical consideration and professional judgment should be applied to any drug of abuse test result, particularly when preliminary positive results are used.

Prescription Use _XX_ 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
Office of In Vitro Diagnostic Device Evaluation and Safety

510(k) k093884
Indications for Use

510(k) Number (if known): k093884

Device Name: DAT Oral Fluid Methamphetamine

Indications for Use:

The Oral Fluid DAT Control Set A is for use as assayed controls with the DAT Oral Fluid assays on automated clinical chemistry analyzers for human oral fluid samples collected with the Intercept Oral Specimen Collection Device.

The Oral Fluid DAT Qual Cal calibrators are designed for the calibration of oral fluid assays for drugs of abuse on automated clinical chemistry analyzers for human oral fluid samples collected with the Intercept Oral Specimen Collection Device.

The Oral Fluid DAT SQ Cal A calibrators are designed for the calibration of oral fluid assays for drugs of abuse on automated clinical chemistry analyzers for human oral fluid samples collected with the Intercept Oral Specimen Collection Device.

Prescription Use _XX_ 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 (OVID)

Division Sign-Off
Office of In Vitro Diagnostic Device Evaluation and Safety

510(k) k093884