# 510(k) Summary

<table>
<thead>
<tr>
<th>Introduction</th>
<th>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.</th>
</tr>
</thead>
</table>
| 1) Submitter | Roche Diagnostics Corporation  
9115 Hague Rd.  
Indianapolis, IN 46250  
(317) 521-7688  
Contact Person: Dimitris Demirtzoglou |
| name, address, contact | |
| 2) Device name | Proprietary name: ONLINE TDM Procainamide  
Common name: Enzyme Immunoassay, Procainamide  
Classification name: Enzyme Immunoassay, Procainamide |
| 3) Predicate | We claim substantial equivalence to the currently marketed COBAS INTEGRA Procainamide (K951595). |
| device | |

*Continued on next page*
510(k) Summary, Continued

4) Device Description

The ONLINE TDM Procainamide assay is for the quantitative determination of procainamide in human serum or plasma on Roche automated clinical chemistry analyzers. The proposed labeling indicates the Roche Hitachi 911, 912, 917 and Modular P analyzers can be used with the Roche ONLINE TDM Procainamide reagent kits.

The assay is based on a homogeneous enzyme immunoassay technique used for the quantitative analysis of procainamide in human serum or plasma. The assay is based on competition between drug in the sample and drug labeled with the enzyme glucose-6-phosphate dehydrogenase (G6PDH) for antibody binding sites. Enzyme activity decreases upon binding to the antibody, so the drug concentration in the sample can be measured in terms of enzyme activity. Active enzyme converts oxidized nicotinamide adenine dinucleotide (NAD) to NADH, resulting in an absorbance change that is measured spectrophotometrically. Endogenous serum G6PDH does not interfere because the coenzyme functions only with the bacterial (Leuconostoc mesenteroides) enzyme employed in the assay.

5) Intended Use

The ONLINE TDM Procainamide assay is for the quantitative determination of procainamide in human serum or plasma on Roche automated clinical chemistry analyzers. Measurements are used in the diagnosis and treatment of procainamide overdose and in monitoring levels of procainamide to ensure proper therapy.

Continued on next page
The Roche ONLINE TDM Procainamide assay is substantially equivalent to other products in commercial distribution intended for similar use. Most notably, it is substantially equivalent to the currently marketed Roche COBAS INTEGRA Procainamide (K951595).

The Roche ONLINE TDM Procainamide assay was evaluated for several performance characteristics including precision, lower detection limit, method comparison, specificity, and interfering substances. All of the evaluation studies gave acceptableresults compared to the predicate device. These experiments provide evidence that the Roche ONLINE TDM Procainamide assay is substantially equivalent to the currently marketed Roche COBAS INTEGRA Procainamide assay. The following table summarizes the precision and method comparison results.

<table>
<thead>
<tr>
<th>NCCLS Precision,</th>
<th>Roche ONLINE TDM N-acetylprocainamide</th>
<th>Roche COBAS FP Procainamide (Predicate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within run</td>
<td>Control 1</td>
<td>Control 2</td>
</tr>
<tr>
<td>Mean (µg/ml)</td>
<td>1.7</td>
<td>7.1</td>
</tr>
<tr>
<td>SD (µg/ml)</td>
<td>0.03</td>
<td>0.07</td>
</tr>
<tr>
<td>CV%</td>
<td>1.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>Control 1</td>
<td>Control 2</td>
</tr>
<tr>
<td>Mean (µg/ml)</td>
<td>1.7</td>
<td>7.1</td>
</tr>
<tr>
<td>SD (µg/ml)</td>
<td>0.04</td>
<td>0.27</td>
</tr>
<tr>
<td>CV%</td>
<td>2.6</td>
<td>3.8</td>
</tr>
</tbody>
</table>

**Method Comparison**

- **Linear Regression: ONLINE TDM Procainamide Vs. COBAS FP Procainamide**
  - N=51, Range = 0.3 - 10.6 µg/ml
  - y = 1.01x + 0.25
  - r = 0.998
  - SD (md 95) = 0.311

- **Linear Regression: COBAS FP Procainamide Vs. COBAS FARA II**
  - N=156, Range = 0.13 - 16 µg/ml
  - y=0.944x + 0.20
  - r=0.996
Mr. Dimitris Demirtzoglou  
Regulatory Affairs Consultant  
Roche Diagnostics Corp.  
9115 Hague Rd.  
Indianapolis, In 46250

Re: k060773  
Trade/Device Name: ONLINE TDM Procainamid  
Regulation Number: 21 CFR 862.3320  
Regulation Name: Digoxin test system  
Regulatory Class: Class II  
Product Code: LAR  
Dated: July 27, 2006  
Received: July 28, 2006

Dear Mr. Demirtzoglou:

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) 276-0484. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). 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) 443-6597 or at its Internet address http://www.fda.gov/cdrh/industry/support/index.html.

Sincerely yours,

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

Enclosure
Indications for Use

510(k) Number (if known): k060773

Device Name: ONLINE TDM Procainamide

Indications For Use:

The ONLINE TDM Procainamide assay is for the quantitative determination of procainamide in human serum or plasma on Roche automated clinical chemistry analyzers. Measurements are used in the diagnosis and treatment of procainamide overdose and in monitoring levels of procainamide to help ensure proper therapy.

Prescription Use X AND/OR Over-The-Counter Use

(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)

[Signature]

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