

K981218

MAY 1 1998

510(k) Summary

Submitter's Name/Address

Abbott Laboratories
1920 Hurd Drive
Irving, Texas 75038

Contact Person

Mark Littlefield
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Regulatory Affairs
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Date of Preparation of this Summary:

April 02, 1998

Device Trade or Proprietary Name:

CK

Device Common/Usual Name or Classification Name: Creatine Kinase

Classification Number/Class:

75CGS/Class II

This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of SMDA 1990 and 21 CFR 807.92.

The assigned 510(k) number is: _____.

Test Description:

Creatine Kinase (CK) is an *in vitro* diagnostic assay for the quantitative determination of creatine kinase activity in human serum. The Creatine Kinase assay is a clinical chemistry assay in which creatine kinase in the sample catalyzes the transfer of a high energy phosphate group from creatine phosphate to ADP. The ATP produced in this reaction is subsequently used to phosphorylate glucose to produce glucose-6-phosphate (G-6-P) in the presence of hexokinase. G-6-P is then oxidized by glucose-6-phosphate dehydrogenase (G-6-PDH) with the concomitant reduction of NAD to NADH. The rate of formation of NADH is monitored at 340 nm and is proportional to the activity of CK in the sample. This reagent also contains AMP and di-(adenosine-5')-pentaphosphate to prevent interference from adenylate kinase.

Substantial Equivalence:

The Creatine Kinase assay is substantially equivalent to the Roche® Cobas Mira® Plus Automated Chemistry System CK NAC assay (K834502).

Both assays yield similar Performance Characteristics.

Similarities:

- Both assays are *in vitro* clinical chemistry methods.
- Both assays can be used for the quantitative determination of creatine kinase activity.
- Both assays yield similar clinical results.

Differences:

- There is a minor difference between the assay range.

Intended Use:

The Creatine Kinase assay is used for the quantitation of creatine kinase in human serum.

Performance Characteristics:

Comparative performance studies were conducted using the ALCYON™ Analyzer. The Creatine Kinase assay method comparison yielded acceptable correlation with the Roche Cobas Mira Plus Automated Chemistry System CK NAC assay. The correlation coefficient = 0.9972, slope = 1.007, and Y-intercept = -8.757 U/L. Precision studies were conducted using the Creatine Kinase assay. Within-run, between-run, and between-day studies were performed using two levels of control material. The total %CV for Level 1/Panel 111 is 2.6% and 2.3% for Level 2/ Panel 112. The Creatine Kinase assay is linear up to 2,100 U/L. The limit of quantitation (sensitivity) for the Creatine Kinase assay is 12 U/L. These data demonstrate that the performance of the Creatine Kinase assay is substantially equivalent to the performance of the Roche Cobas Mira Plus Automated Chemistry System CK NAC assay.

Conclusion:

The Creatine Kinase assay is substantially equivalent to the Roche Cobas Mira Plus Automated Chemistry System CK NAC assay as demonstrated by results obtained in the studies.



Food and Drug Administration
2098 Gaither Road
Rockville MD 20850

MAY 1 1998

Mark Littlefield
Section Manager, Regulatory Affairs
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1920 Hurd Drive
Irving, Texas 75038

Re: K981218
Creatine Kinase
Regulatory Class: II
Product Code: CGS
Dated: April 2, 1998
Received: April 3, 1998

Dear Mr. Littlefield:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to 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). 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 (Pre-market Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the Current Good Manufacturing Practice requirements, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic QS inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your pre-market notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

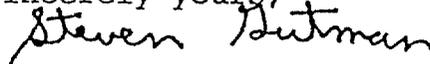
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Under the Clinical Laboratory Improvement Amendments of 1988 (CLIA-88), this device may require a CLIA complexity categorization. To determine if it does, you should contact the Centers for Disease Control and Prevention (CDC) at (770) 488-7655.

This letter will allow you to begin marketing your device as described in your 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 advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4588. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its internet address "<http://www.fda.gov/cdrh/dsmamain.html>".

Sincerely yours,



Steven I. Gutman, M.D., M.B.A.
Director
Division of Clinical
Laboratory Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

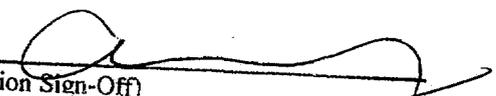
Enclosure

510(k) Number (if known): K 981218

Device Name: Creatine Kinase

Indications For Use:

The Creatine Kinase assay is used for the quantitation of creatine kinase in human serum. Measurements of creatine phosphokinase and its isoenzymes are used in the diagnosis and treatment of myocardial infarction and muscle diseases such as progressive Duchenne-type muscular dystrophy.


(Division Sign-Off)
Division of Clinical Laboratory Devices
510(k) Number K 981218

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

Concurrence of CDRH, Office of Device Evaluation (ODE)
Prescription Use OR Over-The-Counter Use
(Per 21 CFR 801.109) (Optional Format 1-2-96)