



K042318

NOV 19 2008

## 510(k) Summary

### A. Submitter

Aalto Scientific, Ltd.  
1959 Kellogg Ave.  
Carlsbad, CA 92008  
Telephone: (760) 431-7922  
Fax: (760) 431-6824

### B. Contact Person

Brandon J Perez  
Telephone: (760) 431-7922 Ext. 120  
E-mail: bperez@aaltoscientific.com

### C. Date of Summary Preparation

September 13, 2008

### D. Device Identification

Product Trade Name:	Audit™ MicroCV™ Therapeutic Drug (TDM) Linearity Set
Common Name:	Therapeutic Drug (TDM) Linearity
Classification Name:	Assay QC Material
Device Classification:	Class I
Regulation Number:	21 CFR 862.1660
Panel:	75
Product Code:	JJY

### E. Device to Which Substantial Equivalence is Claimed

Audit™ MicroCV™ General Chemistry Linearity Set  
Aalto Scientific, Ltd., Carlsbad, CA  
K042318



## F. Description of the Device

The Audit™ MicroCV™ Therapeutic Drug (TDM) Linearity Set is a human based, lyophilized, five level set of QC material, with each level containing 14 analytes. It is used to confirm the proper calibration, linear operating range, and reportable range of Therapeutic Drug (TDM) methods for the analytes listed. Level A is near the lower limit level and Level E has concentrations near the upper limit of instruments. Levels B – D are related by linear dilution of Level A and Level E.

## G. Statement of Intended Use

The Therapeutic Drug (TDM) Linearity Set is intended to simulate human patient serum samples for the purpose of verifying and validating the Analytical Measurement Range for non-waived Therapeutic Drug (TDM) testing methods as identified in the package insert.

## I. Summary of Performance Data

Stability studies have been performed to determine the reconstituted stability and shelf life for the Audit™ MicroCV™ Therapeutic Drug (TDM) Linearity Set. All supporting data is retained on file at Aalto Scientific, Ltd. Product claims are as follows:

*Reconstituted Stability:* Once a vial has been reconstituted, all analytes will be stable for 5 days when stored tightly capped at 2 - 8° C.

*Shelf Life:* Two years, when stored unopened at 2 - 8° C.

*Note:* Real time studies are ongoing to support the shelf life of this product.

## H. Technical Characteristics Compared to Predicate Device

Characteristics	Audit™ MicroCV™ Therapeutic Drug (TDM) Linearity Set (New Device)	Audit™ MicroCV™ General Chemistry Linearity Set (K042318)
Intended Use	Audit™ MicroCV™ Therapeutic Drug (TDM) Linearity Set is assayed quality control material consisting of human and animal based serum albumin. It is intended to simulate human patient serum samples for the purpose of monitoring the precision and to detect systematic analytical deviations of laboratory testing procedures. This product may also be used as unassayed quality control material for these same analytes and may be used for proficiency testing in interlaboratory surveys. In addition, this product may also be used to perform CLIA directed calibration verification for these same analytes with similar reagents on similar instrumentation in accordance with current CLIA-88 guidelines and regulations.	Audit™ MicroCV™ General Chemistry Linearity Set is assayed quality control material consisting of human based serum. It is intended to simulate human patient serum samples for the purpose of monitoring the precision and to detect systematic analytical deviations of laboratory testing procedures. This product may also be used as unassayed quality control material for these same analytes and may be used for proficiency testing in interlaboratory surveys. In addition, this product may also be used to perform CLIA directed calibration verification for these same analytes with similar reagents on similar instrumentation in accordance with current CLIA-88 guidelines and regulations.
Number of Analytes per vial	14	30
Number of levels per set	5	5
Contents	5 x 5 mL	5 x 5 mL
Matrix	Human and animal based serum albumin	Human Based Serum
Type of Analytes	Therapeutic Drug	General Chemistry
Form	Lyophilized	Lyophilized
Stabilizers	None	None
Preservatives	Sodium azide	Sorbitol Sodium azide
Storage	2 to 8° C Until expiration date	2 to 8° C Until expiration date
Reconstituted Stability	5 days at 2 to 8° C	7 days at 2 to 8° C except for enzymes and bilirubin, which are 48 hours



## J. Conclusions

Based upon the purpose of the device, the descriptions and labeling of the predicate device, the safety and efficacy, and the stability data generated, the product is substantially equivalent to the predicate device.



Aalto Scientific Ltd.  
c/o Mr. Brandon J. Perez  
Research and Development Scientist  
1959 Kellogg Avenue  
Carlsbad, CA 92008

**NOV 19 2008**

Re: k082714  
Trade Name: Audit MicroCV Therapeutic Drug (TDM) Linearity Set  
Regulation Number: 21 CFR 862.1660  
Regulation Name: Quality Control Material (assayed and unassayed).  
Regulatory Class: Class I, reserved  
Product Codes: JJY  
Dated: September 16, 2008  
Received: September 18, 2008

Dear Mr. Perez:

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).

Page 2 –

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) 276-0490. 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 (240) 276-3150 or at its Internet address at <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,



Jean M. Cooper, M.S., D.V.M.

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): ~~unknown~~ K082714

Device Name: Audit™ MicroCV™ Therapeutic Drug (TDM) Linearity Set

### Indications For Use:

The Audit™ MicroCV™ Therapeutic Drug (TDM) Linearity Set consists of five levels in Human and Bovine serum albumin matrix. Each level contains the following analytes: Acetaminophen, Amikacin, Carbamazepine, Digoxin, Gentamicin, Methotrexate, Phenobarbital, Phenytoin, Quinidine, Salicylate, Theophylline, Tobramycin, Valproic Acid and Vancomycin. The five levels demonstrate a linear relationship to each other for their respective analytes, reagents, and instruments.

This product may be used for proficiency testing in interlaboratory surveys and to perform CLIA directed calibration verification for these same analytes with similar reagents on similar instrumentation in accordance with current CLIA-88 guidelines and regulations.

In addition, Level A – E of this product may be used as unassayed quality control material for these analytes or as an assayed quality control material for the analyzer systems specified in the package insert. It is not intended to be used as an assayed quality control material for any other analyzer systems.

Prescription Use   X    
(Part 21 CFR 801 Subpart D)

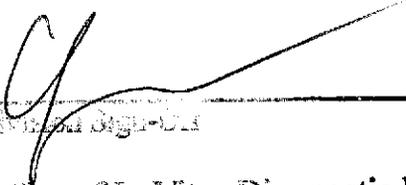
AND/OR

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)

  
\_\_\_\_\_  
Division Director  
Office of In Vitro Diagnostic Devices  
Center for Devices and Radiological Safety  
K082714