

K113546

JUL 24 2012

## 510(k) Summary

---

**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  
**Name, Address,** 9115 Hague Road  
**Contact** Indianapolis, IN 46250  
(317) 521-2458

Contact Person: Michael Leuther, PhD, MBA

Date Prepared: July 18, 2012

---

**Device Name** Proprietary name: (1) Elecsys Vitamin D Assay  
(2) Elecsys Vitamin D CalSet  
(3) Elecsys PreciControl Varia 3  
(4) Elecsys Vitamin D CalCheck 5

Common name: (1) Vitamin D Assay  
(2) Vitamin D Calibrator  
(3) Vitamin D Control  
(4) Vitamin D CalCheck 5

Classification name: (1) System, Test, Vitamin D  
(2) Calibrator, Secondary  
(3) Multi-analyte controls, all kinds (Assayed and Unassayed)  
(4) Single (specified) analyte controls (Assayed and Unassayed)

---

*Continued on next page*

## 510(k) Summary, Continued

- Device Description**
- (1) The Elecsys Vitamin D Assay is a competitive protein binding assay which uses Vitamin D Binding Protein instead of monoclonal antibodies for detection of 25-Hydroxyvitamin D. The total duration of the assay is 27 minutes. The sample is treated with pretreatment reagent in the first incubation period. This releases any vitamin D from the endogenous vitamin D binding protein present in the patient's sample. In the next incubation, vitamin D binding protein labeled with ruthenium is added and a complex is formed between the vitamin D (25-OH) and the ruthenylated vitamin D binding protein. In the 3<sup>rd</sup> and final incubation, streptavidin-coated microparticles are added along with vitamin D (25-OH) labeled with biotin. Any unbound ruthenium labeled vitamin D binding proteins become occupied with biotin-labeled vitamin D (25-OH). The complex consisting of the ruthenylated vitamin D binding protein and the biotinylated vitamin D (25-OH) becomes bound to the solid phase via interaction of the biotin and streptavidin. The reaction mixture is aspirated into the measuring cell where the electrochemiluminescence emission is detected. Results are determined using a calibration curve that is generated specifically on each instrument by a 2 point calibration provided with the reagent bar code.
- (2) The Elecsys Vitamin D CalSet is a lyophilized product based on human serum. It has been standardized against LC-MS/MS, which has in turn been standardized to the NIST standard.
- (3) The Elecsys PreciControl Varia 3 is a multi-composite lyophilized 3 level control set which has been previously cleared for 7 components. The Elecsys PreciControl Varia 3 has been cleared under K111506 for the following analytes:

Assay Name	FDA Clearance Number for Reagents
Vitamin B12	K060755
Ferritin	K971833
Folate III	K082340
βCrossLaps/Serum ( -CTx)	K993706
Osteocalcin	K051297
Parathyroid Hormone	K070709
Parathyroid Hormone Short Turnaround Time (PTH-STAT)	K070709

- (4) The Elecsys Vitamin D CalCheck 5 contains 5 lyophilized levels based on human serum.

**Note:** The reagent, calibrator, and the quality control materials are all packaged separately.

*Continued on next page*

## 510(k) Summary, Continued

---

**Intended  
Use/Indications  
for Use**

- **Elecsys Vitamin D Reagent:** The Elecsys Vitamin D assay is intended for the quantitative determination of total 25-hydroxyvitamin D in human serum and plasma. The assay is to be used as an aid in the assessment of vitamin D sufficiency in adults. The electrochemiluminescence binding assay is intended for use on Elecsys and **cobas e** immunoassay analyzers.
- **Elecsys Vitamin D CalSet:** Elecsys Vitamin D CalSet is used for calibrating the quantitative Elecsys Vitamin D assay on the Elecsys and **cobas e** immunoassay analyzers.
- **Elecsys PreciControl Varia 3:** Elecsys PreciControl Varia 3 is used for quality control of the specified Elecsys immunoassays on the Elecsys and **cobas e** immunoassay analyzers.
- **Elecsys Vitamin D CalCheck 5:** The Elecsys Vitamin D CalCheck 5 is an assayed control for use in calibration verification and for use in the verification of the assay range established by the Elecsys Vitamin D reagent on the indicated Elecsys and **cobas e** immunoassay analyzers.

---

*Continued on next page*

## 510(k) Summary, Continued

---

**Substantial  
Equivalence**

The Elecsys Vitamin D Test System is substantially equivalent to other devices legally marketed in the United States.

(1) Elecsys Vitamin D Assay is equivalent to the Abbott Architect 25-OH Vitamin D assay (K110619).

(2) Elecsys Vitamin D CalSet is equivalent to the standards contained in the Elecsys hGH CalSet (K103221) (Human Growth Hormone).

(3) Elecsys PreciControl Varia 3 is equivalent to the controls contained in the PreciControl Multimarker (K102157).

(4) The Elecsys Vitamin D CalCheck 5 is equivalent to the Elecsys T4 CalCheck 5 (K112528).

---

*Continued on next page*

## Premarket Notification, 510(k) for Elecsys Vitamin D Test System

### Substantial Equivalence - Comparison

The following table compares the Elecsys Vitamin D Test System with the predicate device. The next three tables compare the Elecsys Vitamin D CalSet, CalCheck 5, and PreciControl Varia 3 to their predicates.

### Comparison of Assays, Similarities and Differences

## Premarket Notification, 510(k) for Elecsys Vitamin D Test System

Assay Comparison		
Feature	Elecsys Vitamin D Assay	Predicate Device: Abbott Architect 25-OH Vitamin D (K110619)
General Assay Features		
<b>Intended Use/ Indications for Use</b>	The Vitamin D assay is intended for the quantitative determination of total 25-hydroxyvitamin D in human serum and plasma. This assay is to be used as an aid in the assessment of vitamin D sufficiency in adults. The electrochemiluminescence binding assay is intended for use on Elecsys and <b>cobas e</b> immunoassay analyzers.	The Abbott Architect 25-OH Vitamin D assay is a chemiluminescent microparticle immunoassay (CMIA) for the quantitative determination of 25-hydroxyvitamin D (25-OH vitamin D) in human serum or plasma. The Architect 25-OH Vitamin D assay is to be used as an aid in the assessment of vitamin D sufficiency.
<b>Assay Protocol</b>	Quantitative protein binding assay	Quantitative chemiluminescence immunoassay
<b>Detection Protocol</b>	Electrochemiluminescence	Chemiluminescence
<b>Applications</b>	27 minute application	36 minutes (time to first result)

*Continued on next page*

## Premarket Notification, 510(k) for Elecsys Vitamin D Test System, Continued

### Comparison of Assays—Similarities and Differences, continued

Assay Comparison		
Feature	Elecsys Vitamin D Assay	Predicate Device: Abbott Architect 25-OH Vitamin D (K110619)
General Assay Features		
<b>Instrument Platform</b>	Elecsys 2010 and cobas e 411	Abbott Architect 25-OH Vitamin D
<b>Sample Volume</b>	15 µL	60 µL for first run, 10 µL for additional runs
<b>Sample Type</b>	Human serum and plasma treated with K <sub>2</sub> -EDTA, K <sub>3</sub> -EDTA or lithium heparin.	Human serum, plasma treated with lithium heparin, sodium heparin, potassium EDTA, or sodium citrate.
<b>Reagents</b>	The Elecsys Vitamin D assay is a competitive binding assay which includes vitamin D (25-OH) labeled with biotin, and a ruthenium labeled vitamin D binding protein, and streptavidin coated microparticles.	The Abbott Architect 25-OH Vitamin D assay is a competitive one-step delayed immunometric assay which includes anti-vitamin D coated microparticles, an assay diluent, and biotinylated vitamin D anti-biotin acridinium labeled conjugate.
<b>Calibrator</b>	Elecsys Vitamin D CalSet, 2 levels	Architect 25-OH Vitamin D Calibrators, 6 levels

*Continued on next page*

## Premarket Notification, 510(k) for Elecsys Vitamin D Test System, Continued

### Comparison of Assays—Similarities and Differences, continued

Assay Comparison		
Feature	Elecsys Vitamin D Assay	Predicate Device: Abbott Architect 25-OH Vitamin D (K110619)
General Assay Features		
<b>Calibration Interval</b>	<p>Calibration must be performed once per reagent lot using fresh reagent (i.e. not more than 24 hours since the reagent kit was registered on the analyzer). Renewed calibration is recommended as follows:</p> <ul style="list-style-type: none"> <li>• After 1 month (28 days) when using the same reagent lot.</li> <li>• After 7 days (when using the same reagent kit on the analyzer).</li> <li>• As required: e.g. quality control findings outside the specified limits</li> </ul>	<p>Calibration must be performed:</p> <ul style="list-style-type: none"> <li>• After 7 days</li> <li>• When a control value is out of range</li> </ul>
<b>Controls</b>	Elecsys PreciControl Varia 3	Architect 25-OH Vitamin D Controls

*Continued on next page*

## Premarket Notification, 510(k) for Elecsys Vitamin D Test System, Continued

### Comparison of Assays—Similarities and Differences, continued

Assay Comparison		
Feature	Elecsys Vitamin D Assay	Predicate Device: Abbott Architect 25-OH Vitamin D (K110619)
General assay features		
Traceability / Standardization	The Elecsys Vitamin D Assay has been standardized against LC-MS/MS which in turn has been standardized to the NIST standard.	Architect 25-OH Vitamin D is traceable to a manufacturer's internal standard (Primary Calibrator), which is anchored against Absorbance at 264 nm.
Reagent Stability	Unopened at 2-8 °C—up to stated expiration date After opening at 2-8 °C—56 days On the Elecsys 2010 and cobas e 411—21 days	Unopened at 2-8 °C—up to stated expiration date. After opening: on-board the analyzer for 14 days

*Continued on next page*



**Premarket Notification, 510(k) for Elecsys Vitamin D Test System, Continued**  
**Comparison of Assays—Similarities and Differences, continued**

<b>Assay Comparison</b>		
<b>Feature</b>	<b>Elecsys Vitamin D Assay</b>	<b>Predicate Device: Abbott Architect 25-OH Vitamin D (K110619)</b>
<b>Labeled Performance Characteristics</b>		
<b>Measuring Range</b>	5-60 ng/mL	13-96 ng/mL
<b>Precision</b>	<p><i>Elecsys 2010/ cobas e 411:</i></p> <p>Within-run (will be labeled Repeatability) n=84, human sera</p> <p>7.2% CV @ 6.2 ng/mL 5.1% CV @ 11.2 ng/mL 2.9% CV @ 23.2 ng/mL 2.4% CV @ 45.3ng/mL 1.6% CV @ 52.6 ng/mL</p> <p>Total (will be labeled Intermediate) 10.3% CV @ 6.2 ng/mL 7.6% CV @ 11.2 ng/mL 5.3% CV @ 23.2 ng/mL 3.4% CV @ 45.3ng/mL 2.9% CV @ 52.6 ng/mL</p>	<p><i>Abbott Architect 25-OH Vitamin D</i></p> <p>Within-run n=80, human sera</p> <p>3.1% CV @ 23.0 ng/mL 2.6% CV @ 42.5 ng/mL 1.4% CV @ 75.4 ng/mL</p> <p>Total 4.0% CV @ 23.0 ng/mL 3.2% CV @ 42.5 ng/mL 2.7% CV @ 75.4 ng/mL</p>

*Continued on next page*

## Premarket Notification, 510(k) for Elecsys Vitamin D Test System, Continued

### Comparison of Assays—Similarities and Differences, continued

Assay Comparison					
Feature	Elecsys Vitamin D Assay		Predicate Device: Abbott Architect 25-OH Vitamin D (K110619)		
Labeled Performance Characteristics					
Analytical Sensitivity	Limit of Blank (LoB) 2.00 ng/mL Limit of Detection (LoD) 3.00 ng/mL Limit of Quantitation (LoQ) 5.00 ng/mL		Limit of Blank: 1.9 ng/mL Limit of Detection: 3.1 ng/mL Limit of Quantitation (LoQ) 8.0 ng/mL		
Analytical Specificity	Cross Reactant	Cross Reactivity (%)	Cross Reactant	Cross Reactivity (%)	
	25-hydroxyvitamin D3	100	25-hydroxyvitamin D3	105	
	25-hydroxyvitamin D2	92	25-hydroxyvitamin D2	82	
	24,25-hydroxyvitamin D3	149	24,25-hydroxyvitamin D3	112	
	1,25-hydroxyvitamin D3	not detected	1,25-hydroxyvitamin D3	12.6	
	1,25-hydroxyvitamin D2	not detected	1,25-hydroxyvitamin D2	Not tested	
	Vitamin D3	not detected	Vitamin D3	0.3	
	Vitamin D2	not detected	Vitamin D2	0.1	
	C3-epimer of 25-hydroxyvitamin D3	91	C3-epimer of 25-hydroxyvitamin D3	2.7	
	Hook Effect	There is no high-dose hook effect since the Elecsys Vitamin D assay is a competitive assay		Unknown	
Limitations	The assay is unaffected by: <ul style="list-style-type: none"><li>Hemoglobin &lt; 2 g/L</li><li>Bilirubin up ≤ 66 mg/dL</li><li>Lipemia &lt; 400 mg/dL</li><li>Biotin &lt; 70 ng/mL</li><li>HAMA and Rheumatoid factors were not assessed because the assay does not utilize antibodies</li></ul>		The assay is unaffected by: <ul style="list-style-type: none"><li>Hemoglobin &lt;200 mg/dL</li><li>Bilirubin up &lt; 20 mg/dL</li><li>Triglycerides &lt; 5000 mg/dL</li><li>Biotin not tested</li><li>HAMA&lt;1000 ng/mL</li><li>Rheumatoid Factor &lt;400 IU/mL</li></ul>		

Continued on next page

# **Premarket Notification, 510(k) for Elecsys Vitamin D Test System, Continued**

## **Comparison of Assays—Similarities and Differences, continued**

Assay Comparison				
Feature	Elecsys Vitamin D Assay		Predicate Device: Abbott Architect 25-OH Vitamin D (K110619)	
Labeled Performance Characteristics				
Method Comparison (LC-MS/MS vs. Elecsys)		Slope	Intercept	r
	Deming(n=290)	1.03	-3.07	0.85
Method Comparison Abbott vs. Elecsys)		Slope	Intercept	r
	Deming(n=165)	0.99	1.20	0.91

*Continued on next page*

**Premarket Notification, 510(k) for Elecsys Vitamin D Test System, Continued**  
**Comparison of CalSet Materials**

Characteristic	CalSet for Elecsys Vitamin D Assay	Predicate Device: Elecsys hGH CalSet (K103221)
<b>Intended Use</b>	Elecsys Vitamin D CalSet is used for calibrating the quantitative Elecsys Vitamin D assay on the Elecsys and <b>cobas e</b> immunoassay analyzers.	Elecsys hGH CalSet is used for calibrating the quantitative Elecsys hGH assay on the Elecsys and <b>cobas e</b> immunoassay analyzers.
<b>Levels</b>	Two	Same
<b>Matrix</b>	Human serum	Same
<b>Format</b>	Lyophilized	Same
<b>Stability</b>	<p>Unopened:</p> <ul style="list-style-type: none"> <li>Store at 2 - 8°C up to the stated expiration date.</li> </ul> <p>After reconstitution:</p> <ul style="list-style-type: none"> <li>At 2 - 8°C: 120 hours</li> <li>At -20°C: 90 days (freeze only once).</li> <li>On Elecsys 2010/<b>cobas e</b> 411 at 20 - 25°C: Up to 5 hours.</li> </ul>	<p>Unopened:</p> <ul style="list-style-type: none"> <li>Store at 2 - 8°C up to the stated expiration date.</li> </ul> <p>After reconstitution:</p> <ul style="list-style-type: none"> <li>At 2 - 8°C: 7 days</li> <li>At -20°C: 28 days (freeze only once).</li> <li>On Elecsys 2010/<b>cobas e</b> 411 at 20 - 25°C: Up to 5 hours.</li> </ul> <p>On MODULAR ANALYTICS E170/<b>cobas e</b> 601: Use only once.</p>
<b>Handling</b>	Dissolve the contents of one bottle carefully by adding exactly 1.0 mL of distilled water and allow to stand closed for 15 minutes to reconstitute. Mix carefully, avoiding the formation of foam. Transfer the reconstituted calibrator into the empty labeled snap-cap bottles supplied.	Dissolve carefully the contents of one bottle by adding exactly 1.0 mL of distilled or deionized water and allow to stand closed for 15 minutes to reconstitute. Mix carefully, avoiding the formation of foam. Transfer the reconstituted calibrator into the empty labeled snap-cap bottle supplied.

*Continued on next page*

# **Premarket Notification, 510(k) for Elecsys Vitamin D Test System, Continued** **Comparison of PreciControl Materials**

Characteristic	Elecsys PreciControl Varia 3	Predicate Device: Elecsys PreciControl Multimarker (K102157)
<b>Intended Use</b>	Elecsys PreciControl Varia 3 is used for quality control of Elecsys immunoassays on the Elecsys and <b>cobas e</b> immunoassay analyzers.	Elecsys PreciControl Multimarker is used for quality control of specified Elecsys immunoassays on the Elecsys and <b>cobas e</b> immunoassay analyzers.
<b>Levels</b>	Three	Two
<b>Format</b>	Lyophilized	Same
<b>Matrix</b>	Human serum	Equine serum
<b>Analyte Concentration</b>	25-hydroxyvitamin D (synthetic) in human serum at target values of approximately: V3 0: 12.8 ng/mL V3 1: 17 ng/mL V3 2: 32 ng/mL	C-Peptide (synthetic): Approximately 2 and 10 ng/mL. Insulin (human recombinant from yeast): Approximately 25 and 80 µU/mL. ACTH (synthetic): Approximately 50 and 1,000 pg/mL. hGH (human recombinant from <i>E. coli</i> ): Approximately 1 and 10 ng/mL.
<b>Stability</b>	Unopened: <ul style="list-style-type: none"> <li>Store at 2-8°C up to the stated expiration date</li> </ul> Reconstituted: <ul style="list-style-type: none"> <li>2 - 8°C: 72 hours</li> <li>-20°C: 31 days(freeze only once)</li> <li>On the analyzers at 20-25°C: up to 5 hours</li> </ul>	Unopened: <ul style="list-style-type: none"> <li>Store at 2-8°C up to the stated expiration date</li> </ul> Reconstituted: <ul style="list-style-type: none"> <li>2 - 8°C: 72 hours</li> <li>-20°C: 31 days (freeze only once)</li> <li>On the analyzers at 20-25°C: up to 5 hours</li> </ul>
<b>Handling</b>	Carefully dissolve the contents of one bottle by adding exactly 3.0 mL of distilled or deionized water and allow to stand closed for 30 minutes to reconstitute. Mix carefully, avoiding the formation of foam. Transfer the reconstituted control into the empty, labeled snap-cap bottles supplied or freeze aliquots in additional snap-cap bottles (ControlSet Vials). Attach the supplied labels to these bottles. Perform <b>only one</b> control procedure per aliquot.	Dissolve carefully the contents of one bottle by adding exactly 2.0 mL of distilled or deionized water and allow to stand closed for 30 minutes to reconstitute. Mix carefully, avoiding the formation of foam. Transfer the reconstituted control into empty, labeled snap-cap bottles supplied (ControlSet Vials) and freeze aliquots immediately in additional ControlSet Vials. Attach the supplied labels to these additional bottles. Perform <b>only one</b> control procedure per aliquot.

*Continued on next page*

**Premarket Notification, 510(k) for Elecsys Vitamin D Test System, Continued**  
**Comparison of CalCheck 5 Materials**

<b>Characteristic</b>	<b>Elecsys Vitamin D CalCheck 5</b>	<b>Predicate Device: Elecsys T4 CalCheck 5 (K112528)</b>
<b>Intended Use</b>	The Elecsys Vitamin D CalCheck 5 is an assayed control for use in calibration verification and for use in the verification of the assay range established by the Elecsys Vitamin D reagent on the indicated Elecsys and <b>cobas e</b> immunoassay analyzers.	The Elecsys T4 CalCheck 5 is an assayed control for use in calibration verification and for use in the verification of the assay range established by the Elecsys T4 reagent on the indicated Elecsys and <b>cobas e</b> immunoassay analyzers.
<b>Analyte</b>	(25-OH) Vitamin D	Thyroxine (T4)
<b>Levels</b>	Five	Same
<b>Matrix</b>	Human serum	Check 1: BSA/Buffer matrix Check 2-5: human serum
<b>Format</b>	Lyophilized	Same
<b>Handling</b>	Reconstitute Check 1, Check 2, Check 3, Check 4 and Check 5 with exactly 1.0 mL distilled or deionized water. Allow to stand closed for 15 minutes, then mix gently by inversion to ensure homogeneity.	Same
<b>Stability</b>	Unopened: <ul style="list-style-type: none"> <li>Store at 2-8 °C until expiration date</li> </ul> Reconstituted: <ul style="list-style-type: none"> <li>20-25 °C: 5 hours</li> </ul>	Same



DEPARTMENT OF HEALTH & HUMAN SERVICES

Food and Drug Administration

10903 New Hampshire Avenue  
Silver Spring, MD 20993

Roche Diagnostics  
c/o Michael Leuther, PhD, MBA  
Roche Professional Diagnostics  
9115 Hague Road  
Indianapolis, IN 46250

JUL 24 2012

RE: k113546

Trade Name: Elecsys Vitamin D Assay  
Elecsys Vitamin D CalSet  
Elecsys PreciControl Varia 3  
Elecsys Vitamin D Calcchek 5

Regulation Number: 21 CFR §862.1825

Regulation Name: Vitamin D test system

Regulatory Class: Class II

Product Codes: MRG, JIT, JJY, JJX

Dated: July 5, 2012

Received: July 6, 2012

Dear Dr. Leuther:

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.

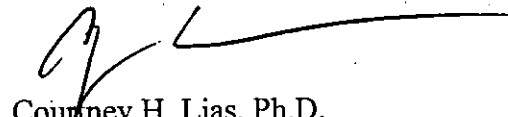
If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in Title 21, Code of Federal Regulations (CFR), Parts 800 to 895. In addition, FDA may publish 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 Part 801), 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 postmarket surveillance, please contact CDRH's Office of Surveillance and Biometric's (OSB's) Division of Postmarket Surveillance at (301) 796-5760. 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) 796-5680 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>

Sincerely yours,



Courtney H. Lias, Ph.D.

Director

Division of Chemistry and Toxicology Devices

Office of *In Vitro* Diagnostic Device

Evaluation and Safety

Center for Devices and Radiological Health

Enclosure



## Indications for Use Form

510(k) Number (if known): \_\_\_\_\_

Device Name: Elecsys Vitamin D Assay

### Indications for Use:

The Elecsys Vitamin D assay is intended for the quantitative determination of total 25-hydroxy vitamin D in human serum and plasma. The Elecsys Vitamin D assay is to be used as an aid in the assessment of vitamin D sufficiency in adults.

The electrochemiluminescence binding assay is intended for use on Elecsys and cobas e immunoassay analyzers.

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 OF  
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) 12113546

## Indications for Use Form

510(k) Number (if known): \_\_\_\_\_

Device Name: Elecsys Vitamin D CalSet

Indications for Use: Elecsys Vitamin D CalSet is used for calibrating the quantitative Elecsys Vitamin D assay on the Elecsys and cobas e immunoassay analyzers.

Prescription Use X  
(Part 21 CFR 801 Subpart D)

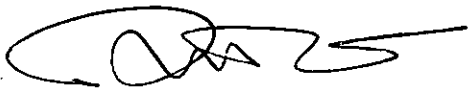
AND/OR

Over-The-Counter Use \_\_\_\_\_  
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE OF  
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) K113546

## Indications for Use Form

510(k) Number (if known): \_\_\_\_\_

Device Name: Elecsys PreciControl Varia 3

Indications for Use: Elecsys PreciControl Varia 3 is used for quality control of specified Elecsys immunoassays on Elecsys and **cobas e** immunoassay analyzers.

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 OF  
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) K113546

## Indications for Use Form

510(k) Number (if known): \_\_\_\_\_

Device Name: Elecsys Vitamin D CalCheck 5

Indications for Use: The Elecsys Vitamin D CalCheck 5 is an assayed control for use in calibration verification and for use in the verification of the assay range established by the Elecsys Vitamin D reagent on the indicated Elecsys and **cobas e** immunoassay analyzers.

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 OF  
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) R113546