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510(k) Summary

K963213

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.

1) Submitter name, address, contact Boehringer Mannheim Corporation
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2) Device name Proprietary name: Boehringer Mannheim Direct HDL-Cholesterol

Common name: HDL test

Classification name: LDL and VLDL precipitation, cholesterol via esterase-oxidase, HDL

3) Predicate device We claim substantial equivalence to the Boehringer Mannheim HDL Cholesterol

4) Device Description The Direct HDL test principle use PEG-modified enzymes and sulfated cyclodextrin. When cholesterol esterase and cholesterol oxidase enzymes are modified by PEG, they show selective catalytic activities toward lipoprotein fractions, with the reactivity increasing in the order LDL < VLDL \approx chylomicrons < HDL.

5) Intended use Boehringer Mannheim Direct HDL is intended for the quantitative determination of high-density lipoprotein Cholesterol (HDL-C) in serum and plasma.

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510(k) Summary, Continued

6) Comparison to predicate device, (cont.)

Performance Characteristics:

Feature	Direct HDL	HDL Cholesterol
Lower Detection Limit	3 mg/dl	3 mg/dl
Linearity	0 - 185 mg/dl	3 - 150 mg/dl
Method Comparison	vs. HDL Cholesterol liquid (Passing-Bablok) n = 110 slope = 1.02 intercept = 0.55 Sy.x = 3.009 r = 0.95 range = 4.8 - 74.4	vs. HDL Cholesterol powder (Passing-Bablok) n = 75 slope = 1.008 intercept = 0.392 Sy.x = 0.597 r = 0.999 range = 6.6 - 125.6
Interfering substances	hemoglobin > 1000 mg/dl bilirubin > 65 mg/dl lipemia > 600 mg/dl	hemoglobin > 79 mg/dl bilirubin > 4 mg/dl lipemia - not tested