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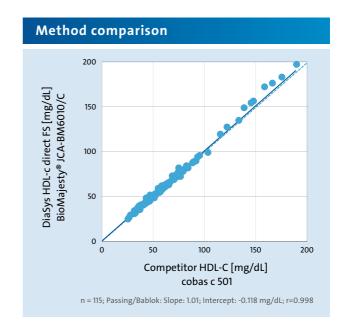
## **New DiaSys method**

Previous HDL-cholesterol [HDL-C] determinations were performed by time-consuming precipitation methods or ultracentrifugation (reference method combined with cholesterol measurement by Abell-Kendall). However, direct determination of HDL-C is used in routine.<sup>1</sup> HDL-c direct FS is a homogeneous method for HDL-C measurement without centrifugation steps. Block polymer detergents protect LDL [Low Density Lipoprotein], VLDL [Very Low Density Lipoprotein] and chylomicrons in a way that only HDL-C is selectively determined by enzymatic cholesterol measurement.<sup>2</sup>

HDL-cholesterol ester 
$$\xrightarrow{\text{CHE \& CHO}}$$
  $\triangle^4$ -Cholestenon + free fatty acids +  $\text{H}_2\text{O}_2$   
 $\text{H}_2\text{O}_2$  + 4-Aminoantipyrine + H-DAOS  $\xrightarrow{\text{POD}}$  Blue dye +  $\text{H}_2\text{O}$ 

## **Performance characteristics**

Precision		
In series N=20	Mean [mg/dL]	CV [%]
Sample 1	17.9	1.52
Sample 2	43.7	1.29
Sample 3	184	0.661
Total precision N=80	Mean [mg/dL]	CV [%]
Sample 1	17.9	2.26
Sample 2	44.7	1.86
Sample 3	186	1.80



## **Features and benefits**

- · Direct homogeneous assay no sample pre-treatment
- · Liquid-stable, ready-to-use reagent
- · Wide measuring range up to 200 mg/dL
- · No significant interferences by lipemia, hemolysis, and icterus
- · Good precision with total coefficient of variation (CV) < 2.27 % and intra-assay CV < 1.53 %
- · Good comparability to competitor assays
- · Superior onboard and calibration stability of 12 weeks
- · Standardized to a commercially available assay which is standardized against the designated CDC reference method (ultracentrifugation method)

## References

- 1 Langlois MR, Blaton VH. Historical milestones in measurement of HDLcholesterol: Impact on clinical and laboratory practice Clin Chimica Acta 2006:369:168-178.
- 2 Miida T, Nishimura K, Okamura T, et al. Validation of homogeneous assays for HDL-cholesterol using fresh samples from healthy and diseased subjects. Atherosclerosis 2014;233(1):253-9.



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