

# HIGH SENSITIVITY C-REACTIVE PROTEIN (hsCRP)



Inflammatory  
Marker

Measurement of CRP is of use for the detection and evaluation of inflammatory disorders and associated diseases, infection and tissue injury. Originally discovered by Tillet et al. in 1930 in patient sera with acute infection, CRP is a marker or general diagnostic indicator of infections and inflammation, in addition to serving as a monitor of patient response to therapy and surgery.

Diazyme's High Sensitivity C-Reactive Protein (hsCRP) assay is a cost effective system utilizing both human serum and plasma on automated clinical chemistry analyzers. The assay is based on a latex enhanced immunoturbidimetric methodology which provides excellent analytical performance features for accurate and reliable testing in the high sensitivity range.

## **DIAZYME hsCRP ASSAY ADVANTAGES**

- Latex enhanced immunoturbidimetric method
- Assay is traceable to ERM-DA472/IFCC
- Liquid stable reagent kit, calibrator and control sets offered separately
- Wide Measuring Range: 0.20 to 20.0 mg/L
- Fast test results (10 minutes) for a rapid turnaround time
- Liquid stable format requires no reagent preparation
- Wide range of instrument parameters available for simplifying implementation

## **REGULATORY STATUS**

510(k) Cleared; EU:  

# HIGH SENSITIVITY C-REACTIVE PROTEIN (hsCRP)

Dual Vial  
Liquid Stable

## ASSAY SPECIFICATIONS

<b>Method</b>	Latex Enhanced Immunoturbidimetric
<b>Sample Type &amp; Volume</b>	<ul style="list-style-type: none"> <li>• Serum</li> <li>• Plasma</li> <li>- EDTA</li> <li>- Li-heparin</li> </ul> <p>Sample Volume 5 µL</p>
<b>Method Comparison</b>	<p>N = 57 y-intercept = 0.0196 Slope = 1.01 R<sup>2</sup> = 0.990</p> <p>Sample Range: 0.2 – 18.9 mg/L</p>
<b>Linearity</b>	0.20 – 20.0 mg/L
<b>LOB LOD LOQ</b>	<p>0.08 mg/L</p> <p>0.13 mg/L</p> <p>0.20 mg/L</p>
<b>Calibration Levels</b>	4 - Point Calibration
<b>Traceability</b>	Traceable to IFCC International Reference Preparation for Plasma Proteins certified by the Bureau of Reference of the European Community
<b>Reagent On-Board Stability</b>	<p>Opened:</p> <p>Two weeks when stored at 2-8°C</p>

### hsCRP Assay Procedure\*



\*Analyzer Dependent

Parameter questions for hsCRP assay should be addressed to Diazyme technical support. Please call 858.455.4768 or email [support@diazyme.com](mailto:support@diazyme.com)

## ASSAY PRECISION

The intra-precision of the Diazyme hsCRP Assay was evaluated as follows: in the study, three serum controls containing CRP were tested in duplicates on a Hitachi 917 over 20 days with 2 runs per day.

### Within-Run Precision:

	Level 1:	Level 2:	Level 3:	Serum	Serum
<b>N</b>	80	80	80	80	20*
<b>Mean (mg/L)</b>	0.85	1.75	8.62	3.62	15.56
<b>SD (mg/L)</b>	0.03	0.03	0.06	0.05	0.19
<b>CV (%)</b>	4.0	1.7	0.7	1.4	1.2

### Total Precision:

	Level 1:	Level 2:	Level 3:	Serum	Serum
<b>N</b>	80	80	80	80	20*
<b>Mean (mg/L)</b>	0.85	1.75	8.62	3.62	15.56
<b>SD (mg/L)</b>	0.04	0.05	0.12	0.09	0.24
<b>CV (%)</b>	4.2	2.6	1.4	2.4	1.6

## ASSAY INTERFERENCE

The following substances do not interfere with this assay at the levels tested (less than 10% basis):

Hemoglobin:	up to 500 mg/dL
Bilirubin:	up to 40 mg/dL
Bilirubin conjugated:	up to 40 mg/dL
Triglycerides:	up to 1000 mg/dL
Ascorbic acid:	up to 176 mg/dL
Rheumatoid factor:	up to 400 IU/mL

## REFERENCE RANGE

The assay reference interval was determined using serum specimens from 103 apparently healthy adults with age of 18-62 according to CLSI C28-A3 guideline. The serum specimens were tested in duplicate by the Diazyme hsCRP method. EP Evaluator 8 Software was used to verify the reference interval. The results showed that < 5.0 mg/L CRP was obtained in 95% of the population tested. However, it is recommended that each laboratory establishes a range of normal values for the population it serves.

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