Monkey CRP ELISA Kit (C-Reactive protein) ab260062

Overview

Product name: Monkey CRP ELISA Kit (C-Reactive protein)
Detection method: Colorimetric

Precision

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum</td>
<td>8</td>
<td></td>
<td></td>
<td>2.4%</td>
</tr>
<tr>
<td>Inter-assay</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serum</td>
<td>3</td>
<td></td>
<td></td>
<td>0.9%</td>
</tr>
</tbody>
</table>

Sample type: Serum, Cell culture media, Hep Plasma, EDTA Plasma, Cit plasma
Assay type: Sandwich (quantitative)
Sensitivity: 9.14 pg/ml
Range: 31.25 pg/ml - 2000 pg/ml

Recovery

<table>
<thead>
<tr>
<th>Sample type</th>
<th>Average %</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum</td>
<td>115</td>
<td>110% - 119%</td>
</tr>
<tr>
<td>Cell culture media</td>
<td>100</td>
<td>97% - 103%</td>
</tr>
<tr>
<td>Hep Plasma</td>
<td>113</td>
<td>112% - 115%</td>
</tr>
<tr>
<td>EDTA Plasma</td>
<td>115</td>
<td>111% - 117%</td>
</tr>
<tr>
<td>Cit plasma</td>
<td>115</td>
<td>113% - 117%</td>
</tr>
</tbody>
</table>

Assay time: 1h 30m
Assay duration: One step assay
Species reactivity
Reacts with: Monkey
Does not react with: Cow

Product overview
Monkey CRP ELISA Kit (C-Reactive protein) (ab260062) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of CRP (C-Reactive protein) protein in cell culture media, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Monkey CRP (C-Reactive protein) with 9.14 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (ab203359) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Notes
C-reactive protein (CRP) displays several functions associated with host defense: it promotes agglutination, bacterial capsular swelling, phagocytosis and complement fixation through its calcium-dependent binding to phosphorylcholine. CRP can interact with DNA and histones and it may scavenge nuclear material released from damaged circulating cells. CRP is secreted; it forms a homopentamer pentaxin (or pentraxin) which have a discoid arrangement of 5 non-covalently bound subunits. CRP binds 2 calcium ions per subunit. The concentration of CRP in plasma increases greatly during acute phase response to tissue injury, infection or other inflammatory stimuli. It is induced by IL1/interleukin-1 and IL6/interleukin-6. This kit requires the use of acid treatment for the disassociation of CRP.

Platform
Pre-coated microplate (12 x 8 well strips)

Properties

Storage instructions
Store at +4°C. Please refer to protocols.

<table>
<thead>
<tr>
<th>Components</th>
<th>1 x 96 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X Monkey CRP (C-Reactive Protein) Capture Antibody</td>
<td>1 x 600µl</td>
</tr>
<tr>
<td>10X Monkey CRP (C-Reactive Protein) Detector Antibody</td>
<td>1 x 600µl</td>
</tr>
<tr>
<td>10X Wash Buffer PT (ab206977)</td>
<td>1 x 20ml</td>
</tr>
<tr>
<td>Antibody Diluent 4BI</td>
<td>1 x 6ml</td>
</tr>
<tr>
<td>Monkey CRP (C-Reactive Protein) Lyophilized Recombinant Protein</td>
<td>2 vials</td>
</tr>
</tbody>
</table>
### Function
Displays several functions associated with host defense: it promotes agglutination, bacterial capsular swelling, phagocytosis and complement fixation through its calcium-dependent binding to phosphorylcholine. Can interact with DNA and histones and may scavenge nuclear material released from damaged circulating cells.

### Tissue specificity
Found in plasma.

### Sequence similarities
Belongs to the pentaxin family.
Contains 1 pentaxin domain.

### Cellular localization
Secreted.

### SimpleStep ELISA Protocol Diagram
SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

### Example of monkey CRP standard curve in Sample Diluent NS.
The CRP standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.
The concentrations of CRP were measured in duplicates, interpolated from the CRP standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 1:500, plasma (citrate) 1:500, plasma (EDTA) 1:2000 and plasma (heparin) 1:500. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean CRP concentration was determined to be 824.7 ng/mL in serum, 743.0 ng/mL in plasma (citrate) and 2689.5 ng/mL in plasma (EDTA), and 826.5 ng/mL in plasma (heparin).

To learn more about the advantages of recombinant antibodies see here.
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