**QuantiChrom™ Total Protein Assay Kit**

**Quantitative Colorimetric Determination of Total Protein**

**DESCRIPTION**

Total protein concentration can be determined by several methods. However, protein dye-binding procedures are simple, reliable, rapid, readily automated and are becoming increasingly popular in assessing renal and blood brain barrier functions.

BioAssay Systems' Total Protein Assay Kit is based on an improved pyrogallol red-molybdate protein dye-binding assay. The color intensity at 600 nm is directly proportional to the total protein concentration in the sample. This single reagent can be used for the quantitative determination of total protein in urine (proteinuria) and cerebrospinal fluid (blood brain barrier).

**KEY FEATURES**

- Fast and sensitive. Assay takes 10 min. Linear detection range of 5 - 200 mg/dL protein.
- Robust and Reliable. Substances in urine have minimal interference (< 2%).
- Convenient and high-throughput. Homogeneous “mix-incubate-measure” type assay. Can be readily automated on HTS liquid handling systems for processing thousands of samples per day.

**APPLICATIONS**

Determination of total protein in biological samples (e.g. urine, CSF).

**KIT CONTENTS**

<table>
<thead>
<tr>
<th>Catalog#</th>
<th>Reagent</th>
<th>Standard</th>
<th>Tests (96-well)</th>
<th>Tests (Cuvette)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QTPR-100</td>
<td>20 mL</td>
<td>1 mL 100 mg/dL</td>
<td>100</td>
<td>20</td>
</tr>
<tr>
<td>QTPR-01K</td>
<td>200 mL</td>
<td>1 mL 100 mg/dL</td>
<td>1000</td>
<td>200</td>
</tr>
</tbody>
</table>

For bulk orders of > 1000 mL Reagent, please inquire for a quote.

**CALCULATION**

Total protein concentration of a Sample is calculated as

\[
\text{Total Protein} = \frac{OD_{\text{SAMPLE}} - OD_{\text{H2O}}}{OD_{\text{STANDARD}} - OD_{\text{H2O}}} \times n \times 100 \text{ (mg/dL)}
\]

where \(OD_{\text{SAMPLE}}\), \(OD_{\text{STANDARD}}\) and \(OD_{\text{H2O}}\) are the optical density values of the Sample, the Standard and the H2O (blank), respectively. If calculated protein concentration is higher than 200 mg/dL dilute Sample in water and repeat assay. Multiply the results by the dilution factor \(n\).

**MATERIAL REQUIRED BUT NOT PROVIDED**

For 96-well plate assays: pipetting devices, clear flat bottom 96-well plates, and plate reader. For cuvette assays: pipetting devices, cuvettes and spectrophotometer capable of reading \(OD_{600\text{nm}}\).

**LITERATURE**


**RELATED PRODUCTS**

- QuantiChrom™ Protein Assay Kit (Bradford method): cat# QCPR-500.
- QuantiFluo™ Protein Assay Kit (o-phthalaldehyde method): cat# QFPR-200.