Creatinine Assay Kit (ab65340) provides an accurate, convenient measure of creatine concentration in biological fluids such as serum, urine or CSF. In the assay, creatinine is converted to creatine by creatininase, creatine is converted to sarcosine, which is specifically oxidized to produce a product which reacts with a probe to generate red color (λmax = 570 nm) and fluorescence (Ex/Em = 538/587 nm). Unlike picric acid assays, this kit is suitable for serum/plasma creatinine determinations, as well as for urine and other biological samples.

For deproteinization of samples: 10kda method works the better for deproteinization when preparing samples as opposed to PCA method. It’s possible that the chemicals used negatively affects the enzyme components of the assay kit.

Visit our FAQs page for tips and troubleshooting.

Notes
Creatinine is a breakdown product of creatine phosphate. Creatinine is produced and excreted at a constant rate, and blood creatinine is used to determine glomerular filtration rate (GFR), a measure of kidney function. Blood creatinine levels increase only in cases of significant (>75%) damage to nephrons. Creatinine clearance is frequently used as a means of standardizing excretion of other compounds such as isoprostanes.

Tested applications
Suitable for: Functional Studies

Properties

Storage instructions
Store at -20°C. Please refer to protocols.

Components
<table>
<thead>
<tr>
<th>Identifier</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creatinase (Lyophilized)</td>
<td>Blue</td>
</tr>
</tbody>
</table>
Creatinine, or creatine anhydride, is a breakdown product of creatine phosphate in muscle. The loss of water molecule from creatine results in the formation of creatinine. Creatinine is transferred to the kidneys by blood plasma, whereupon it is eliminated from the body by glomerular filtration and partial tubular excretion. Creatinine is usually produced and excreted at a fairly constant rate, and blood creatinine is used to determine glomerular filtration rate (GFR), a measure of kidney function.

<table>
<thead>
<tr>
<th>Components</th>
<th>Identifier</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creatininase (Lyophilized)</td>
<td>Violet</td>
<td>1 vial</td>
</tr>
<tr>
<td>Creatinine Standard (10 µmol) (Lyophilized)</td>
<td>Yellow</td>
<td>1 vial</td>
</tr>
<tr>
<td>Creatinine Assay Buffer</td>
<td>WM</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>Creatinine Enzyme Mix (Lyophilized)</td>
<td>Green</td>
<td>1 vial</td>
</tr>
<tr>
<td>Creatinine Probe in DMSO (200µl)</td>
<td></td>
<td>1 x 200µl</td>
</tr>
</tbody>
</table>

**Relevance**

Creatinine, or creatine anhydride, is a breakdown product of creatine phosphate in muscle. The loss of water molecule from creatine results in the formation of creatinine. Creatinine is transferred to the kidneys by blood plasma, whereupon it is eliminated from the body by glomerular filtration and partial tubular excretion. Creatinine is usually produced and excreted at a fairly constant rate, and blood creatinine is used to determine glomerular filtration rate (GFR), a measure of kidney function.

**Applications**

Our Abpromise guarantee covers the use of ab65340 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional Studies</td>
<td></td>
<td>Use at an assay dependent dilution.</td>
</tr>
</tbody>
</table>

**Images**

Standard curve: mean of duplicates (+/- SD) with background reads subtracted

![Standard curve image](https://example.com/standard_curve.png)
Standard curve: mean of duplicates (+/- SD) with background reads subtracted.

Creatinine measured in mouse and human serum plotted against RFU. Samples were diluted 5-10 fold.

Creatinine measured in mouse and human urine plotted against RFU. Samples were diluted 400-800 fold.

Creatinine levels in filtered human urine was measured in the presence or absence of creatininase (background signal subtracted).

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"
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- Response to your inquiry within 24 hours

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- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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