# Uric Acid Assay Kit ab65344

## Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Uric Acid Assay Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detection method</td>
<td>Colorimetric/Fluorometric</td>
</tr>
<tr>
<td>Sample type</td>
<td>Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids, Tissue Extracts</td>
</tr>
<tr>
<td>Assay type</td>
<td>Quantitative</td>
</tr>
<tr>
<td>Assay time</td>
<td>0h 40m</td>
</tr>
<tr>
<td>Product overview</td>
<td>Uric Acid Assay Kit (ab65344) provides a convenient means for detecting uric acid in biological samples such as serum and urine. Pretreatment of samples is not required.</td>
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</tbody>
</table>

Uric acid level can be measured using fluorometric (at Ex/Em = 535/587 nm) or colorimetric (at λ= 570 nm) methods.

Uric acid assay protocol summary:
- add reaction mix to samples and standards
- incubate for 30 min
- analyze on microplate reader

## Notes

Uric acid in serum is the end product of purine metabolism, and is cleared through the kidney by glomerular filtration. However, human often lacks the necessary enzyme called urate oxidase (Uricase), and therefore abnormal uric acid may be accumulated in blood. Recent evidences show the close association between serum urate level and cardiovascular morbidity and mortality, especially among persons at high cardiovascular risk, including those with hypertension, diabetes and congestion heart failure.

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## Platform

- Microplate reader

## Storage instructions

Store at -20°C. Please refer to protocols.
Relevance

Uric acid is a heterocyclic purine derivate that is the final oxidation product of purine metabolism. It is produced by xantine oxidase, which oxidizes oxypurines such as xanthine into uric acid. In most mammals, except humans and higher primates, the enzyme uricase further oxidizes uric acid to allantoin. In humans, however, uric acid is the end product of purine metabolism, and is cleared through the kidney by glomerular filtration and excreted in urine. Humans produce only small quantities of uric acid and therefore abnormal uric acid may be accumulated in blood leading to a type of arthritis known as gout.

Images

Uric acid measured in mouse tissue lysates, showing quantity (nmol) per mg of extracted protein (duplicates; +/- SD).

![Uric acid measured in mouse tissue lysates](image1)

Functional assays: Uric acid (ab65344)

Uric acid measured in biological fluid (duplicates; +/- SD).

![Uric acid measured in biological fluid](image2)

Functional assays: Uric acid (ab65344)

<table>
<thead>
<tr>
<th>Components</th>
<th>Identifier</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uric Acid Assay Buffer</td>
<td>WM</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>Uric Acid Enzyme Mix</td>
<td>Green</td>
<td>1 vial</td>
</tr>
<tr>
<td>Uric Acid Probe (in DMSO, anhydrous)</td>
<td>Red</td>
<td>1 x 0.2ml</td>
</tr>
<tr>
<td>Uric Acid Standard (2 nmol/µl)</td>
<td>Yellow</td>
<td>1 x 1ml</td>
</tr>
</tbody>
</table>
Example of Fluorometric Standard Curve

![Uric acid fluorometric standard curve.](image1)

Example of Colorimetric Standard Curve

![Uric acid colorimetric standard curve.](image2)

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