Overview

Product name: Arginase Activity Assay Kit (Colorimetric)
Detection method: Colorimetric
Sample type: Tissue, Adherent cells, Suspension cells
Assay type: Enzyme activity (quantitative)
Sensitivity: < 0.2 U/ml
Assay time: 1h 00m
Species reactivity: Reacts with: Mammals, Other species

Product overview:
Arginase Activity Assay Kit (Colorimetric) ab180877 is a simple, sensitive and rapid assay to quantify arginase activity.

In the arginase assay protocol, arginase reacts with arginine and undergoes a series of reactions that form an intermediate that react stoichiometrically with the probe to generate a colored product that can be detected at OD = 570 nm.

The kit can detect less than 0.2 U/L Arginase activity in 96-well assay format.

Arginase assay protocol summary:
- add samples and standards to wells
- add arginase substrate mix to sample wells only
- incubate for 20 min
- add arginase assay reaction mix to all wells
- analyze with microplate reader in kinetic mode for 10-30 min

Notes:
Arginase (EC 3.5.3.1) is the final enzyme of the Urea Cycle. It converts L-arginine into urea and L-ornithine and plays an important role in removing ammonium ion from the body.

Platform:
Microplate reader

Properties

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

<table>
<thead>
<tr>
<th>Component</th>
<th>Identifier</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arginase Assay Buffer</td>
<td>WM</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>Arginase Converter Enzyme (Lyophilized)</td>
<td>Blue</td>
<td>1 vial</td>
</tr>
<tr>
<td>Arginase Developer (Lyophilized)</td>
<td>Orange</td>
<td>1 vial</td>
</tr>
<tr>
<td>Arginase Enzyme Mix (Lyophilized)</td>
<td>Green</td>
<td>1 vial</td>
</tr>
<tr>
<td>Arginase Positive Control (Lyophilized)</td>
<td>Purple</td>
<td>1 vial</td>
</tr>
<tr>
<td>Arginase Substrate (Lyophilized)</td>
<td>White</td>
<td>1 vial</td>
</tr>
<tr>
<td>Hydrogen peroxide</td>
<td>Yellow</td>
<td>1 x 100µl</td>
</tr>
<tr>
<td>OxiRed Probe in DMSO</td>
<td>Red</td>
<td>1 x 200µl</td>
</tr>
</tbody>
</table>

### Pathway

Nitrogen metabolism; urea cycle; L-ornithine and urea from L-arginine: step 1/1.

### Involvement in disease

Argininemia

### Sequence similarities

Belongs to the arginase family.

### Cellular localization

Cytoplasm.

### Images

H₂O₂ Standard Curve. Assay performed following kit protocol.
Arginase activity in rat liver lysate (3 µg) & Positive Control (2 µL). Assays were performed following the kit protocol.

![Graph showing OD 570 nm over time (min) for Blank, Rat Liver, and Positive Control]

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

**Our Abpromise to you: Quality guaranteed and expert technical support**

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit [https://www.abcam.com/abpromise](https://www.abcam.com/abpromise) or contact our technical team.

**Terms and conditions**

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors