Asparaginase Activity Assay Kit (Colorimetric/Fluorometric) (ab107922) provides a simple, direct and automation-ready procedure for measuring asparaginase activity in biological samples. In the asparaginase assay protocol, asparaginase hydrolyzes asparagine to generate aspartic acid, which can be detected indirectly colorimetrically (OD=570 nm) or fluorescently (Ex/Em = 535/590 nm) using a coupled enzymatic reaction.

Asparaginase assay protocol summary:
- add reaction mix to sample and standard wells, mix and incubate for 10 min
- analyze with microplate reader in kinetic mode for 30-60 min

Notes
Asparaginase (EC 3.5.1.1) is a homotetramer that catalyzes the hydrolysis of asparagine to aspartic acid and ammonia and exhibits about a 2-4% activity on glutamine and 5% on D-asparagine. Asparaginase does not occur naturally in humans but is found in bacteria, plants and many animals (e.g. guinea pigs).

Product Overview

- **Product name**: Asparaginase Activity Assay Kit
- **Detection method**: Colorimetric/Fluorometric
- **Sample type**: Cell Lysate
- **Assay type**: Enzyme activity
- **Assay time**: 0h 40m

**Product overview**
Asparaginase Activity Assay Kit (Colorimetric/Fluorometric) (ab107922) provides a simple, direct and automation-ready procedure for measuring asparaginase activity in biological samples. In the asparaginase assay protocol, asparaginase hydrolyzes asparagine to generate aspartic acid, which can be detected indirectly colorimetrically (OD=570 nm) or fluorescently (Ex/Em = 535/590 nm) using a coupled enzymatic reaction.

Asparaginase assay protocol summary:
- add reaction mix to sample and standard wells, mix and incubate for 10 min
- analyze with microplate reader in kinetic mode for 30-60 min

**Notes**
Asparaginase (EC 3.5.1.1) is a homotetramer that catalyzes the hydrolysis of asparagine to aspartic acid and ammonia and exhibits about a 2-4% activity on glutamine and 5% on D-asparagine. Asparaginase does not occur naturally in humans but is found in bacteria, plants and many animals (e.g. guinea pigs).

**Properties**

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

**Storage buffer**
Preservative: None
Constituents: DMSO

<table>
<thead>
<tr>
<th>Components</th>
<th>Identifier</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asparaginase Assay Buffer</td>
<td>WM</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>Aspartate Enzyme Mix (lyophilized)</td>
<td>Green</td>
<td>1 vial</td>
</tr>
<tr>
<td>Aspartate Standard (100 mM)</td>
<td>Yellow</td>
<td>1 x 0.1ml</td>
</tr>
</tbody>
</table>
Functional Studies - Asparaginase Activity Assay Kit (Colorimetric)

Typical asparaginase standard calibration curve using colorimetric reading.

Functional Studies - Asparaginase Activity Assay Kit (Fluorometric)

Typical asparaginase standard calibration curve using fluorometric reading.

<table>
<thead>
<tr>
<th>Components</th>
<th>Identifier</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversion Mix (lyophilized)</td>
<td>Purple</td>
<td>1 vial</td>
</tr>
<tr>
<td>Positive Control (lyophilized)</td>
<td>Blue</td>
<td>1 vial</td>
</tr>
<tr>
<td>Probe (in DMSO)</td>
<td>Red</td>
<td>1 x 0.2ml</td>
</tr>
<tr>
<td>Substrate Mix (lyophilized)</td>
<td>Orange</td>
<td>1 vial</td>
</tr>
</tbody>
</table>

Images

![Typical asparaginase standard calibration curve using colorimetric reading.]

![Typical asparaginase standard calibration curve using fluorometric reading.]

Components

Identifier

100 tests
Functional Studies - Asparaginase Activity Assay Kit (Fluorometric)

Asparaginase measured in cell lysates showing quantity (mU) per mL of tested sample.

Aspartate measured in cell lysates after 10 min and 30 min incubation time showing quantity (nmol) per mL of tested sample.

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 or contact our technical team.

Terms and conditions

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