Asparaginase Activity Assay Kit ab107922

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).

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

Storage buffer
Preservative: None
Constituents: DMSO

Components
<table>
<thead>
<tr>
<th>Component</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>
## Components

<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.

![Colorimetric Reading](image1.png)

Typical asparaginase standard calibration curve using fluorometric reading.

![Fluorometric Reading](image2.png)
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"

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