Lipase Activity Assay Kit (Colorimetric) ab102524

Overview

Product name: Lipase Activity Assay Kit (Colorimetric)
Sample type: Cell culture supernatant, Milk, Urine, Serum, Plasma, Other biological fluids, Tissue Extracts, Cell culture media
Assay type: Enzyme activity
Sensitivity: 0.02 mU/well
Assay time: 1h 30m

Product overview:
Lipase Activity Assay Kit ab102524 is a rapid, simple, and sensitive colorimetric assay for the measurement of lipase activity.

In the lipase assay protocol, lipase hydrolyzes a triglyceride substrate to form glycerol which is quantified enzymatically by monitoring a linked change in the absorbance of a probe (OD=570nm).

This lipase assay kit detects lipase activity as low as 0.02mU per well.

Lipase assay protocol summary:
- add samples and standards to wells
- add reaction mix
- analyze every 2-3 min with microplate reader in kinetic mode for at least 60-90 min at 37°C

Notes:
For HTP analysis, we recommend Lipase Activity Assay Kit II (Colorimetric) (ab102525) or Lipase Activity Assay Kit III (Fluorometric) (ab118969).

Properties

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Identifier</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assay Buffer</td>
<td>WM</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>Enzyme Mix (lyophilized)</td>
<td>Green</td>
<td>1 vial</td>
</tr>
<tr>
<td>Glycerol Standard</td>
<td>Yellow</td>
<td>1 x 0.2ml</td>
</tr>
</tbody>
</table>
Lipases perform essential roles in the digestion, transport and processing of dietary lipids (e.g. fats and oils) in living organisms. In humans, pancreatic lipase is the key enzyme responsible for breaking down fats in the digestive system by converting triglyceride to monoglyceride and free fatty acid. Pancreatic lipase monitoring is also used to help diagnose Crohn's disease, cystic fibrosis and celiac disease. Damage to the pancreas can exhibit a 5-10 fold increase of serum lipase levels within 24 to 48 hours.

## Components

<table>
<thead>
<tr>
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<th>Identifier</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lipase positive control</td>
<td>Purple</td>
<td>1 vial</td>
</tr>
<tr>
<td>Lipase Substrate</td>
<td>Blue</td>
<td>1 vial</td>
</tr>
<tr>
<td>OxiRed Probe</td>
<td>Red</td>
<td>1 x 0.2ml</td>
</tr>
</tbody>
</table>

## Images

### Sample Timeline

Functional Studies - Lipase Activity Colorimetric Assay Kit (ab102524)

### Glycerol standard Curve

Functional Studies - Lipase Activity Colorimetric Assay Kit (ab102524)
Plasma lipase levels were measured (using ab102524) after 75 days treatment with saline, liraglutide, exendin-4 or sitagliptin. ND, normal chow diet; HFD, high fat diet. p≤0.05, *; p≤0.01, **, n=3–7 mice.

There were no detectable differences in plasma lipase activity in mice on a normal chow diet administered any of the three drugs when compared to animals administered saline. Likewise, there was no significant change in plasma lipase activity in mice that were administered saline on a high fat diet vs normal diet. Furthermore, administration of liraglutide and exendin-4 in combination with a high fat diet also failed to affect plasma lipase activity. We observed no detectable changes in plasma lipase activity in animals maintained on a normal chow diet and administered any of the three drugs when compared to animals administered saline.

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