Lipase Assay Kit (Colorimetric) ab102524

Overview

Product name: Lipase Assay Kit (Colorimetric)
Detection method: 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 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 kit is suitable for high throughput analysis (HTP).

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

Platform:
Microplate reader

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>
Relevance

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.

Images

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.

Sample Timeline
Glycerol standard Curve

Functional Studies - Lipase Activity Colorimetric Assay Kit (ab102524)

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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