abcam

Product datasheet

Lipase Assay Kit (Colorimetric) ab102524

21 References 3 Images

Overview

Product name Lipase Assay Kit (Colorimetric)

Detection methodColorimetric

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

Notes This product is manufactured by BioVision, an Abcam company and was previously called K722

Lipase Activity Colorimetric Assay Kit. K722-100 is the same size as the 100 test size of

ab102524.

Platform Microplate reader

Properties

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

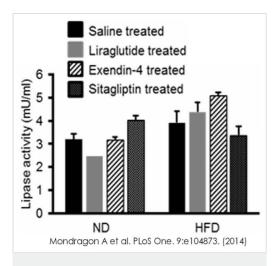
1

Components	100 tests
Assay Buffer V	1 x 25ml
Enzyme Mix VI	1 vial
Glycerol Standard	1 x 0.2ml
Lipase Positive Control	1 vial
Lipase Substrate III	1 vial
OxiRed Probe	1 x 0.2ml

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

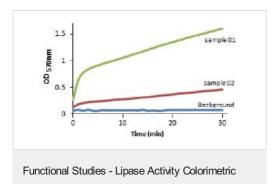


Functional Studies - Lipase Activity Colorimetric Assay Kit (ab102524)

Image from Mondragon Aet al., PLoS One. 2014;9(8):e104873. Fig 3.; doi: 10.1371/journal.pone.0104873. Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

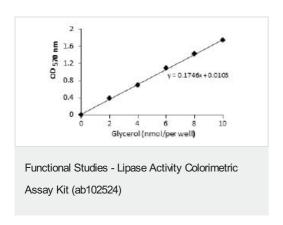
Plasma lipase levels were measured (using ab102524) after 75 days treatment with saline, liraglutide, exendin-4 or sitagliptin. ND, normal chow diet; HFD, high fat diet. p \leq 0.05, *; p \leq 0.01, **, n=3–7 mice.

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 vsnormal 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.



Assay Kit (ab102524)

Sample Timeline



Glycerol standard Curve

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