

Free Fatty Acid Assay Kit

Free Fatty Acid Assay Kit (Colorimetric)

CATALOG #
AAA44503

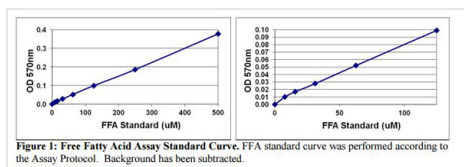
PRODUCT SYNONYMS

Free Fatty Acid; Free Fatty Acid Assay Kit (Colorimetric); Free Fatty Acid assay kit

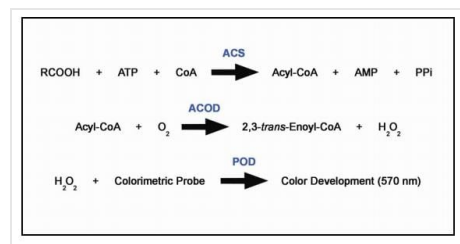
PRODUCT SPECIFICATIONS

Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Store the entire kit at -80 degree C. Avoid multiple freeze/thaws by aliquoting. The NEM Reagent and Colorimetric Probe are light sensitive and should be maintained in amber tubes.

IMAGES



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for Free Fatty Acid assay kit

Background: Triglycerides (TAG) are a type of lipid in the blood, serving as an energy source and playing a key role in metabolism. Triglycerides are the digestive end product of breaking down dietary fats. Any extra carbohydrates and fats that are not immediately used are chemically converted into triglycerides. In the intestines, secreted enzyme lipases hydrolyze the triglyceride ester bond, yielding glycerol and free fatty acids (FFA) in a process called lipolysis. Additionally, hormones induce and regulate lipase activity in adipose tissue, resulting in changes to blood FFA levels. Free fatty acids then bind plasma albumin for circulation in the body, serving as a readily absorbed energy source for muscle, brain and other organ tissues. Measurement of free fatty acids has become useful in monitoring and identification of several diseases and metabolic disorders (e.g. obesity, insulin resistance, diabetes, cancer). Free Fatty Acid Assay Kit measures non-esterified fatty acids (NEFA) in serum and plasma by a coupled enzymatic reaction system (ACS-ACOD Method). First, Acyl CoA Synthetase (ACS) catalyzes fatty acid acylation of coenzyme A. Next, the acyl-CoA product is oxidized by Acyl CoA Oxidase (ACOD), producing hydrogen peroxide which reacts with the kit's Colorimetric Probe (absorbance maxima of 570 nm). The Free Fatty Acid Assay Kit is a simple, colorimetric assay that quantitatively measures the free fatty acid concentration (non-esterified) in various samples using a 96-well microtiter plate format. Each kit provides sufficient reagents to perform up to 100 assays, including blanks, standards and unknown samples. The kit contains a palmitic acid standard and has a detection sensitivity limit of ~15 μ M.

Product Categories/Family for Free Fatty Acid assay kit

Metabolism Research; Lipoprotein Metabolism; Fatty Acid Metabolism

References

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5. Kelley, D.E., Mokan, M., Simoneau, J.A., and Mandarino, L.J. (1993) J. Clin. Invest. 92, 91-98.
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- Diané, A. et al. (2014). PACAP is essential for the adaptive thermogenic response of brown adipose tissue to cold exposure. J Endocrinol. 222:327-339.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/assay-kits/free-fatty-acid/44503>