CREATIVE BIOMART®
Assay Kit

Lipolysis (3T3-L1) Colorimetric Assay Kit

Product Information

Cat

Kit-2214

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Product Overview

Lipolysis is the hydrolysis of triglycerides within the cell into glycerol and free fatty acids. The glycerol and free fatty acids are then released into the bloodstream or culture media. Lipolysis occurs in essentially all cells, but is most abundant in white and brown adipose tissue. Deficiencies in lipolysis lead to increased intracellular lipid accumulation, resulting in abnormal cellular physiology, hyperlipidemia, and insulin resistance. Lipolysis can be induced by catecholamines and certain hormones. The kit includes synthetic catecholamines, Isoproterenol, which activates β-adrenergic receptors. This leads to activation of adenylate cyclase, which catalyzes the conversion of ATP to cAMP. cAMP then serves as a second messenger to activate hormone-sensitive lipase, which hydrolyzes the triglycerides. This pathway can be inhibited by insulin. 3T3-L1 Lipolysis Assay kit is simple and easy-to-use. The assay measures glycerol released from 3T3-L1 cells after induction of lipolysis using colorimetric method. The color intensity is directly proportional to the amount of glycerol. This assay kit can detect less than 200 pmol of glycerol.

Applications

Measurement of lipolysis in 3T3-L1 cells or adipocytes;
Screening compounds that influence lipolysis, mechanistic studies, and studies on metabolic dysfunctions.

Storage

-20°C

Shipping

Gel Pack

Size

Tel: 1-631-559-9269 1-516-512-3133
Email:info@creative-biomart.org
Fax:1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

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Assay Kit

Lipolysis (3T3-L1) Colorimetric Assay Kit

100 assays

Kit Components

Lipolysis Assay Buffer; Lipolysis Wash Buffer; Glycerol Assay Buffer; Glycerol Probe (in DMSO, Anhydrous); Glycerol Enzyme Mix (Lyophilized); Glycerol Standard (100 mM); Isoproterenol (10 mM)

Detection method Absorbance (OD 570 nm)

Features & Benefits

Simple, rapid & convenient;
The assay can detect less than 200 pmol of glycerol.

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