

Lipolysis Assay Kit (Colorimetric) ab185433

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Overview

Product name	Lipolysis Assay Kit (Colorimetric)
Detection method	Colorimetric
Sample type	Cell culture supernatant
Assay type	Quantitative
Sensitivity	< 0.2 nmol/well
Range	2 nmol/well - 10 nmol/well
Assay time	0h 40m
Species reactivity	Reacts with: Mammals, Other species
Product overview	Abcam's Lipolysis Assay Kit (Colorimetric) (ab185433) 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.

Lipolysis assay protocol summary:

- add samples and standards to wells
- add reaction mix
- incubate for 30 min
- analyze with microplate reader

Notes This product is manufactured by BioVision, an Abcam company and was previously called K577 Lipolysis (3T3-L1) Colorimetric Assay Kit. K577-100 is the same size as the 100 test size of ab185433.

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 catecholamine and certain hormones. The kit includes synthetic catecholamine, 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.

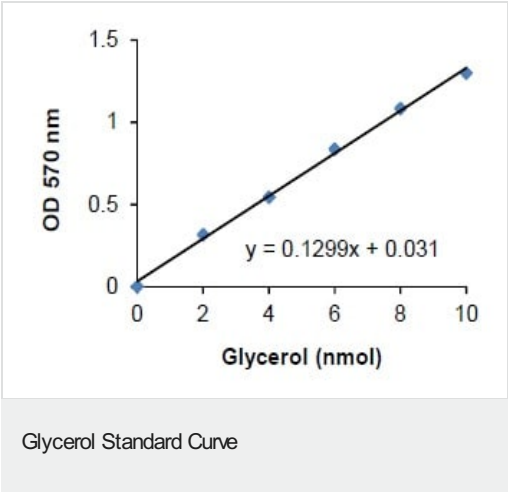
Platform Microplate reader

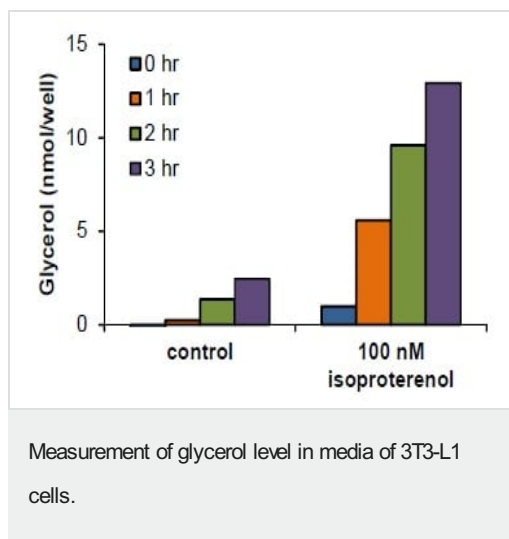
Properties

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

Components	100 tests
Assay Buffer V	1 x 25ml
Enzyme Mix VI	1 vial
Glycerol Standard	1 x 0.2ml
Isoproterenol	1 x 50µl
Buffer IV	1 x 17ml
Wash Buffer VIII	1 x 22ml
OxiRed Probe	1 x 0.2ml

Images





50 μ l of 3T3-L1 cells treated with vehicle control (H_2O) or 100 nM Isoproterenol for 0-3 hours.

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