

L-Lactate Assay Kit (Colorimetric/Fluorometric) ab65330

11 References 画像数 6

医薬用外毒物

製品の概要

製品名	L-Lactate Assay Kit (Colorimetric/Fluorometric)
サンプルの種類	Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids, Cell Lysate, Tissue Lysate
アッセイタイプ	Quantitative
検出感度	> 0.001 mM
検出範囲	0.001 mM - 10 mM
全工程の試験時間	0h 40m
種交差性	交差種: Mammals, Other species
製品の概要	L-Lactate Assay Kit (Colorimetric/Fluorometric) (ab65330) is an assay where lactate specifically reacts with a enzyme mix to generate a product, which interacts with lactate probe to produce color (570 nm) and fluorescence (at Ex/Em = 535/587 nm). The kit provides a convenient means for detecting L(+)-Lactate in biological samples such as in blood circulation, in cells, in culture mediums, in fermentation mediums, etc. There is no need for pretreatment or purification of samples.

Visit our [FAQs page](#) for tips and troubleshooting.

Review our [Metabolism Assay Guide](#) to learn about assays for metabolites, metabolic enzymes, mitochondrial function, and oxidative stress, and also about how to assay metabolic function in live cells using your plate reader.

特記事項

L(+)-Lactate is the major stereo-isomer of lactate formed in human intermediary metabolism and is present in blood. D(-)-Lactate is also present but only at about 1-5% of the concentration of L(+)-Lactate.

製品の特性

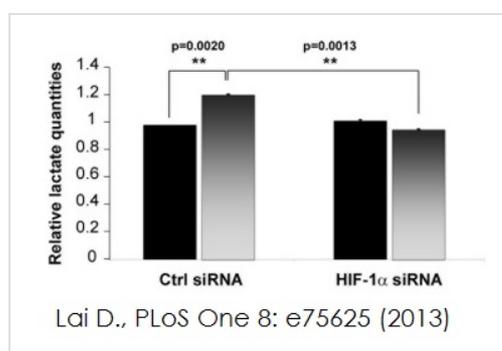
保存方法 Store at -20°C. Please refer to protocols.

内容	ラベル	100 tests
L(+)-Lactate Standard (100 nmol/μl)	Yellow	1 x 100μl
Lactate Assay Buffer	WM	1 x 25ml

内容	ラベル	100 tests
Lactate Enzyme Mix (lyophilized)	Green	1 vial
Lactate Probe (in DMSO, anhydrous)	Red	1 x 200µl

関連性 Lactate ($\text{CH}_3\text{CH}(\text{OH})\text{COO}^-$) plays important roles in many biological processes. Abnormal high concentration of lactate has been related to disease states such as diabetes and lactate acidosis, etc. L(+)-Lactate is the major stereoisomer of lactate formed in human intermediary metabolism and is present in blood. The lactate to pyruvate ratio reflects the redox state of the cell and describes the balance between NAD^+ and NADH , which is dependent on the interconversion of lactate and pyruvate via lactate dehydrogenase (LDH).

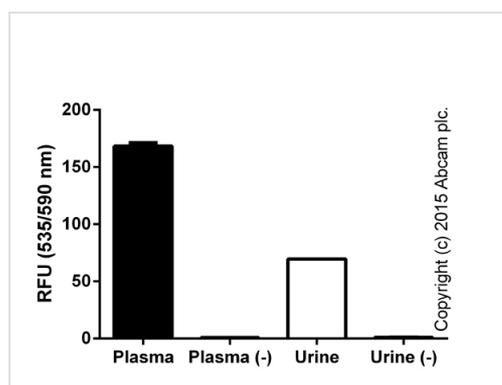
画像



HaCaT cells are grown in normoxia for 3 days after infection and medium was tested to determine lactate concentration using L-Lactate assay kit (ab65330). HaCaT cells were infected with AdGFP-18E2 or AdGFP, transfected with Ctrl or HIF-1 α siRNA.

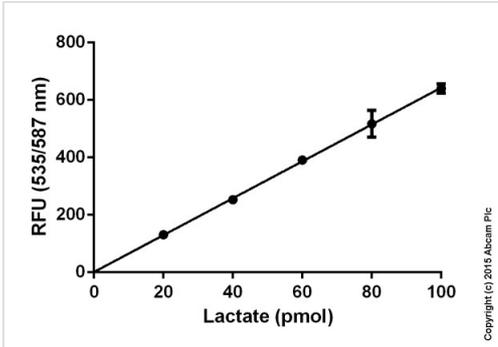
Functional studies - ab65330

Image from Lai D., PLoS One 8(9), Fig 6C. Doi: 10.1371/journal.pone.0075625.



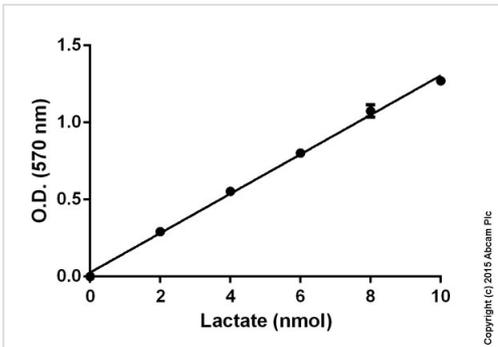
Relative signal (RFU) in unfiltered human plasma (dilution 1:200) and mouse urine (dilution 1:200), comparing L-lactate signals with background readings ((-); no enzyme) after 10 minutes of incubation (duplicates +/- SD).

Functional Assay: L-Lactate Assay Kit
(Colorimetric/Fluorometric) (ab65330)



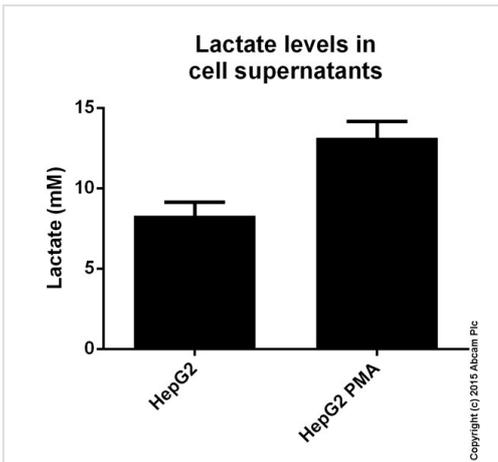
Standard curve: mean of duplicates (+/- SD) with background reads subtracted

Functional Studies - L-Lactate Assay Kit (ab65330)



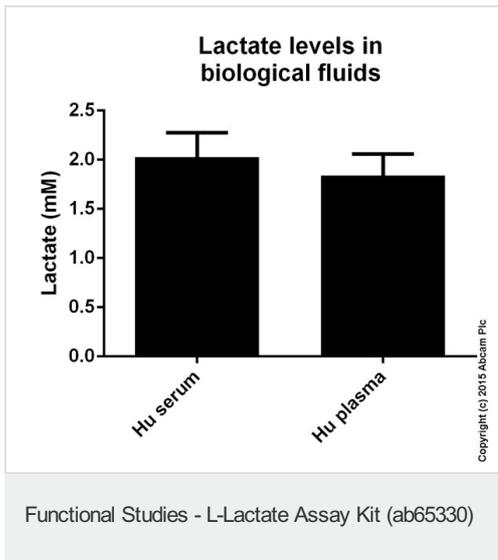
Standard curve: mean of duplicates (+/- SD) with background reads subtracted

Functional Studies - L-Lactate Assay Kit (ab65330)



Lactate measured in cell culture supernatants showing quantity (μmol) per mL of tested sample. Samples were diluted 40-160 fold and measured fluorometrically.

Functional Studies - L-Lactate Assay Kit (ab65330)



Lactate measured in biological fluids showing quantity (μmol) per mL of tested sample. Samples were diluted 10-40 fold and measured fluorometrically.

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