abcam

Product datasheet

D-Lactate Assay Kit (Colorimetric) ab83429

12 References 画像数 4

製品の概要

製品名 D-Lactate Assay Kit (Colorimetric)

検出方法 Colorimetric

サンプルの種類 Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids, Tissue Extracts

アッセイタイプQuantitative検出感度> 0.01 mM

検出範囲 0.01 mM - 10 mM

全工程の試験時間 0h 40m

製品の概要 D-Lactate Assay Kit (Colorimetric) Kit ab83429 provides a fast, easy way to accurately measure

D-lactate in a variety of biological samples.

In the D-lactate assay protocol, D-lactate is specifically oxidized by D-lactate dehydrogenase and generates proportional color (λ max = 450 nm). The kit detects D-Lactate in samples such as

serum, plasma, cells, culture and fermentation media.

D-lactate assay protocol summary:

- add reaction mix to sample and standard wells

- incubate for 30 min

- analyze with a microplate reader

特記事項 This product is manufactured by BioVision, an Abcam company and was previously called K667

D-Lactate Colorimetric Assay Kit. K667-100 is the same size as the 100 test size of ab83429.

試験プラットフォーム Microplate reader

製品の特性

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

Assay Buffer XII 1 x 25ml Developer Solution III 1 vial	内容	100 tests
Developer Solution III 1 vial	Assay Buffer XII	1 x 25ml
	Developer Solution III	1 vial

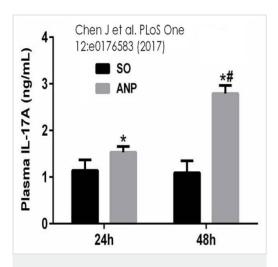
1

内容	100 tests
D-Lactate Standard	1 x 100µl
Enzyme Mix V	1 vial

関連性

D-Lactate production in mammals, mainly due to the glyoxalase pathway, is extremely low, with normal serum concentrations in the nano to micromolar range. Typically, elevated D-lactate levels which can rise to millimolar levels, are due to bacterial infection or short bowel syndrome in humans. Abnormally high concentrations of D-lactate are considered indicative of sepsis, ischemia or trauma. Due to slow metabolism and excretion, high D-lactate can cause acidosis and encephalopathy.

画像



Functional Studies - D-Lactate Assay Kit

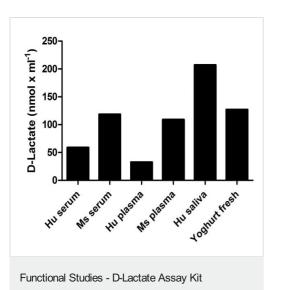
(Colorimetric) (ab83429)

Image from Chen J et al., PLoS One. 2017;12(4):e0176583. Fig 2(A).; doi: 10.1371/journal.pone.0176583. Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

Measurement of plasma D-lactate at 24h and 48h after ANP induction using ab83429.

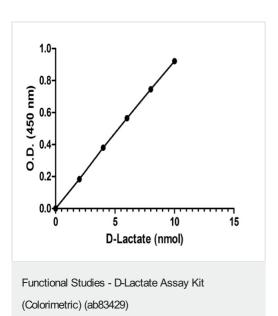
To evaluate the severity of intestinal barrier dysfunction, plasma DAO and D-lactate were measured as indicators of intestinal mucosal mass and integrity which can reflect the extent of permeability and damage in the intestine.

Compared with the SO groups D-lactate significantly increased in the ANP groups at 24h and 48h (all p<0.05). The ANP48h group had significantly higher levels of plasma D-lactate than those of the ANP24h group (p<0.05, respectively).

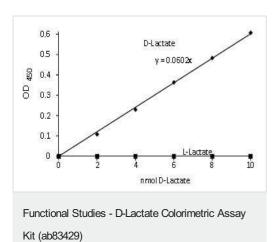


(Colorimetric) (ab83429)

D-Lactate measured in human serum, plasma and saliva, mouse serum and plasma and fresh yoghurt showing quantity (nmol) per ml of tested sample. Samples were diluted 3-27 fold.



Colorimetric standard curve: mean of duplicates (+/- SD) with background reads subtracted.



D-Lactate Standard Curve. The assay is performed according to the kit instruction. The assay specifically detects D-Lactate in the presence of up to 1000X L-Lactate.

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