

### Fumarate Assay Kit ab102516

★★★★★ [1 Abreviews](#) [18 References](#) [5 图像](#)

#### 概述

产品名称	Fumarate Assay试剂盒
检测方法	Colorimetric
样品类型	Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids, Tissue Extracts
检测类型	Quantitative
灵敏度	> 1 nmol/well
检测时间	0h 40m
产品概述	Fumarate Assay Kit ab102516 provides a convenient tool for sensitive detection of Fumarate in biological samples.

In the fumarate assay protocol, the fumarate enzyme mix recognizes fumarate as a specific substrate leading to proportional color development. The amount of fumarate can therefore be easily quantified using a colorimetric assay ( $\lambda = 450 \text{ nm}$ ). It can detect as low as 1 nmol of fumarate per well (20  $\mu\text{M}$ ).

Fumarate assay protocol summary:

- add samples and standards to wells
- add reaction mix and incubate for 1 hr
- analyze with a microplate reader

说明	<p>This product is manufactured by BioVision, an Abcam company and was previously called K633 Fumarate Colorimetric Assay Kit. K633-100 is the same size as the 100 test size of ab102516.</p> <p>Fumarate (<math>\text{HO}_2\text{CCH}=\text{CHCO}_2\text{H}^-</math>) is an intermediate in the Krebs cycle used by cells to metabolize food to form ATP. In the mammalian liver, Fumarate is also a product of the Urea cycle where its release in the cytosol leads to its conversion into malate and subsequently oxaloacetate while generating NADH in the cytosol.</p>
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平台	Microplate reader
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#### 性能

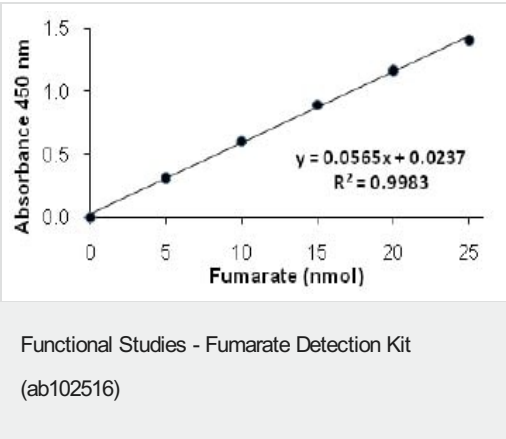
存放说明	Store at -20°C. Please refer to protocols.
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组件	100 tests
Assay Buffer LXIV	1 x 25ml
Developer Solution III	1 vial
Fumarate Enzyme Mix	1 vial
Fumarate Solution	1 x 0.2ml

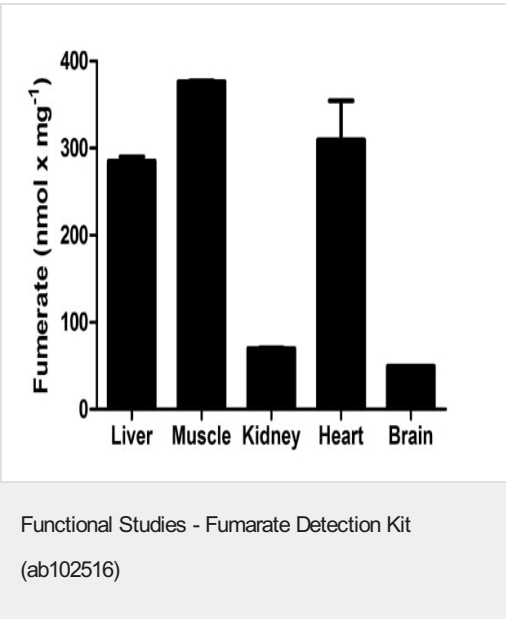
相关性

Fumarate ( $\text{HO}_2\text{CCH}=\text{CHCO}_2\text{H}^-$ ) is an intermediate in the Krebs's cycle used by cells to metabolize food to form ATP. In the mammalian liver, Fumarate is also a product of the Urea cycle where its release in the cytosol leads to its conversion into malate and subsequently oxaloacetate while generating NADH in the cytosol. The human skin naturally produces fumaric acid when exposed to sunlight. In fact, fumaric acid esters have been used to treat psoriasis, possibly due to an impaired production of fumaric acid in the skin. Fumaric acid has also been used in beverages, baking powders and candy.

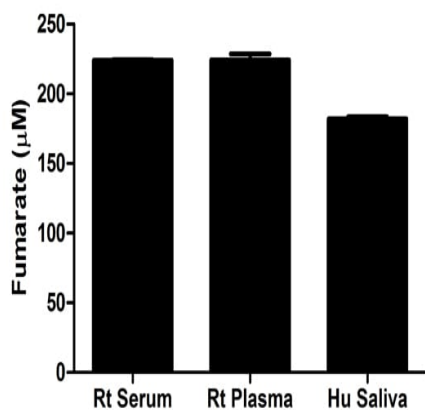
图片



Fumurate Standard Curve

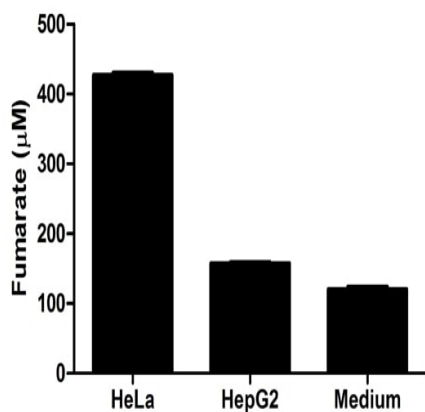


Fumarate measured in mouse tissue lysates (mg of extracted protein), background signal subtracted (duplicates +/- SD).



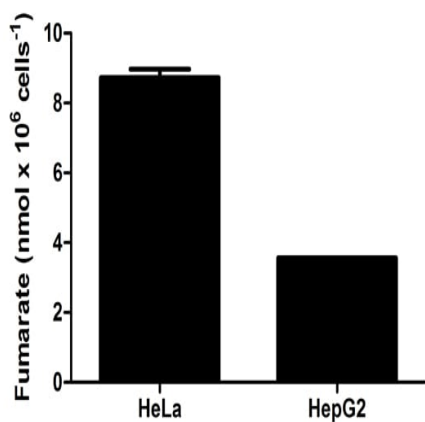
Fumarate measured in biological fluids, background signal subtracted (duplicates +/- SD).

Functional Studies - Fumarate Detection Kit  
(ab102516)



Fumarate measured in cell culture medium and control medium, background signal subtracted (duplicates +/- SD).

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Fumarate measured in cell lysates, background signal subtracted (duplicates +/- SD).

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**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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