

Citrulline Assay Kit (Fluorometric) ab273309

[3 Images](#)

Overview

Product name	Citrulline Assay Kit (Fluorometric)
Detection method	Fluorescent
Sample type	Serum, Other biological fluids, Food samples
Assay type	Quantitative
Sensitivity	2 μ M
Assay duration	Multiple steps standard assay
Product overview	Citrulline Assay Kit (Fluorometric) (ab273309) provides a rapid, specific, and easy method for the measurement of total Citrulline concentrations in a wide variety of samples.

In this enzymatic assay, Citrulline is converted into a series of intermediates, which further reacts with a probe producing a stable fluorescent signal (Ex/Em = 535/587 nm). The kit is simple, easy to perform, sensitive and is high throughput adaptable.

It can detect as low as 2 μ M Citrulline in biological samples.

Notes This product is manufactured by BioVision, an Abcam company and was previously called K2002 Citrulline Fluorometric Assay Kit. K2002-100 is the same size as the 100 test size of ab273309.

Platform Microplate

Properties

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

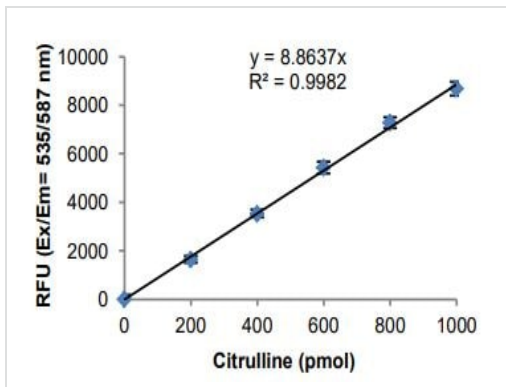
Components	100 tests
Assay Buffer XLV	1 x 25ml
Buffer Supplement I	1 vial
Citrulline Cofactor Mix	1 x 200 μ l
Citrulline Converter Mix	1 vial

Components	100 tests
Citrulline Standard	1 vial
Development Enzyme Mix I	1 vial
Development Enzyme Mix III	1 x 200µl
OxiRed Probe	1 x 200µl

Relevance

The amino acid Citrulline is required to detoxify the liver from ammonia, which is a waste product of the body from oxidation. Citrulline promotes energy and assists with the immune system. This unusual amino acid is formed in the urea cycle by the addition of carbon dioxide and ammonia to ornithine. It is then combined with aspartic acid to form arginosuccinic acid, which later is metabolized into the amino acid arginine.

Images

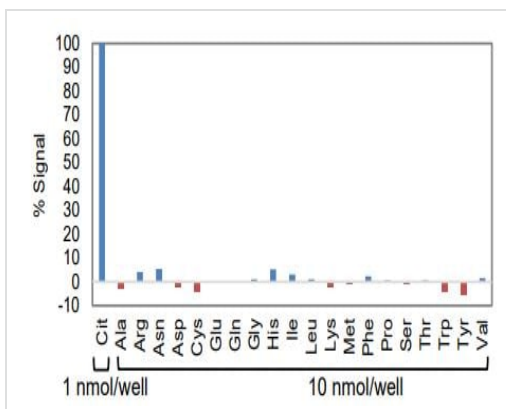


Citrulline Standard curve

Typical standard curve – data provided for demonstration

purposes only. A new standard curve must be generated for each assay performed.

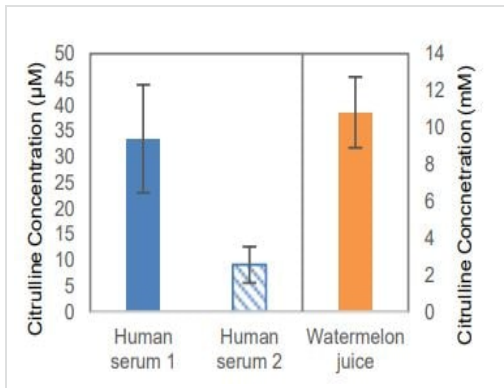
Citrulline Standard Curve.



Specificity of the detection of Citrulline

Specificity of the detection of Citrulline over other amino acids.

Other amino acids were tested at a 10-fold molar excess (each AA: 10 nmol) vs Citrulline (1 nmol).



Estimations of Citrulline in different samples

Estimations of Citrulline in 2 human serum samples (10 and 40 µl in each well respectively) and watermelon juice (4 µl of 100X dilution). Citrulline concentrations were 33.50 µM and 9.11 µM in human serum respectively and 10.81 mM in watermelon juice.

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