

Product datasheet

Glutamate Assay Kit ab83389

★★★★★ [2 Abreviews](#) [43 References](#) [2 Images](#)

Overview

Product name	Glutamate Assay Kit
Detection method	Colorimetric
Sample type	Urine, Serum, Plasma, Other biological fluids, Cell Lysate
Assay type	Quantitative
Assay time	0h 40m
Product overview	Glutamate Assay Kit ab83389 provides a sensitive detection method of the glutamate in a variety of samples.

The glutamate assay kit will only measure free glutamate levels but not glutamic acid found in the backbone of peptides or proteins.

In the glutamate assay protocol, the enzyme mix recognizes glutamate as a specific substrate leading to proportional color development. The amount of glutamate can therefore be easily quantified by colorimetric spectrophotometry at OD = 450 nm.

Glutamate assay protocol summary:

- add samples and standards to wells
- add reaction mix and incubate for 30 min at 37°C
- analyze with microplate reader

Notes	<p>This product is manufactured by BioVision, an Abcam company and was previously called K629 Glutamate Colorimetric Assay Kit. K629-100 is the same size as the 100 test size of ab83389.</p> <p>EDTA plasma may not be used with the ab83389 Glutamate Assay Kit. EDTA can interfere with the assay.</p> <p>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.</p>
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Platform	Microplate reader
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Properties

Storage instructions

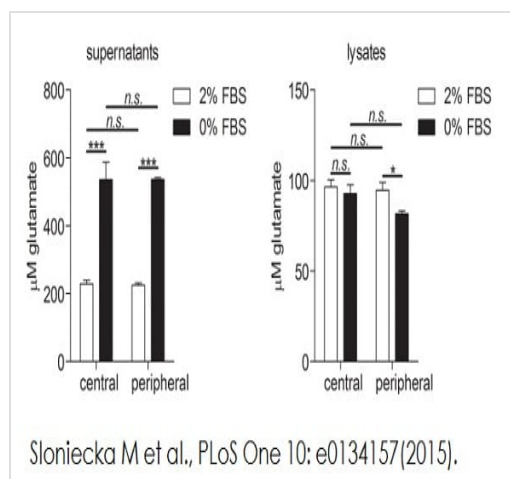
Store at -20°C. Please refer to protocols.

Components	100 tests
Assay Buffer XXXI	1 x 25ml
Developer Solution III	1 vial
Enzyme Mix VIII	1 vial
Glutamate Standard	1 x 100µl

Relevance

Glutamate, one of the two acidic proteinogenic amino acids, is also a key molecule in cellular metabolism. In humans, glutamate plays an important role both in amino acid degradation and disposal of excess or waste nitrogen. Glutamate is the most abundant swift excitatory neurotransmitter in the mammalian nervous system. It is believed to be involved in learning and memory and has appeared to be involved in diseases like amyotrophic lateral sclerosis, lathyrism, autism, some forms of mental retardation and Alzheimer's disease. Glutamic acid is also present in a wide variety of foods, and has been used as a flavor enhancer in food industry.

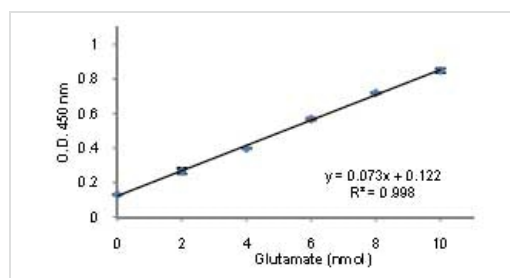
Images



Functional studies - ab83389

Image from Sloniecka Met al., PLoS One 10(7), Fig 5a.
Doi: 10.1371/journal.pone.0134157. Reproduced under the Creative Commons license
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Glutamate levels of central and peripheral keratocytes were determined using Glutamate assay kit (ab83389).



Functional Studies - Glutamate Assay Kit (ab83389)

Example of Glutamate standard curve obtained using ab83389

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