**Product datasheet**

**Glutamate Assay Kit ab83389**

- **Product name**: Glutamate Assay Kit
- **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. This kit will only measure free glutamate levels but not glutamic acid found in the backbone of peptides or proteins. The glutamate 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.

EDTA plasma may not be used with the ab83389 Glutamate Assay Kit. EDTA can interfere with the assay.

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.

**Notes**

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.

**Properties**

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

**Components**

<table>
<thead>
<tr>
<th>Component</th>
<th>Identifier</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glutamate Assay Buffer</td>
<td>WM</td>
<td>1 x 25ml</td>
</tr>
</tbody>
</table>
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, lathyrysm, 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

Glutamate levels of central and peripheral keratocytes were determined using Glutamate assay kit (ab83389).

Example of Glutamate standard curve obtained using ab83389

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
We provide support in Chinese, English, French, German, Japanese and Spanish

- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors