Phenylalanine Assay Kit ab83376

Overview

Product name: Phenylalanine Assay Kit
Sample type: Urine, Serum, Plasma, Other biological fluids, Tissue Extracts
Assay type: Quantitative
Sensitivity: > 2 µM
Range: 2 µM - 20 µM
Assay time: 0h 30m

Product overview
Abcam's Phenylalanine Assay Kit provides a quick, simple, accurate method for quantifying PHE in biological samples. In the assay, PHE is reductively deaminated with the simultaneous formation of NADH which reacts with our fluorescent probe to generate fluorescence at Ex/Em=535/587 nm. The assay is linear in the range from 0.1 to 1.0 nmol (2-20 µM) of Phenylalanine.

Visit our FAQs page for tips and troubleshooting.

Notes
L-Phenylalanine (PHE) is an electrically-neutral amino acid, one of the twenty common and one of the three aromatic amino acids used to biochemically form proteins. Phenylalanine uses the same active transport channel as tryptophan to cross the blood-brain barrier, and, in large quantities, interferes with the production of serotonin. Errors in PHE metabolism lead to phenylketonuria or PKU which can have dire consequences.

Properties

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

Components | Identifier | 100 tests |
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Developer (lyophilized) | Red | 1 vial |
Enzyme Mix (lyophilized) | Green | 1 vial |
Phenylalanine Standard (1.0 µmol) (lyophilized) | Yellow | 1 vial |
Phenylalanine Assay Buffer | WM | 1 x 25ml |
Tyrosinase (lyophilized) | Blue | 1 vial |

Relevance
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the three aromatic amino acids used to biochemically form proteins. Phenylalanine uses the same active transport channel as tryptophan to cross the blood-brain barrier, and, in large quantities, interferes with the production of serotonin. Errors in PHE metabolism lead to phenylketonuria or PKU which can have dire consequences.

Images

Phenylalanine measured in cell lysates showing quantities (micromoles) per million of cells tested.

Phenylalanine measured in biofluids showing concentration in micromolar.
Phenylalanine fluorimetric standard curve: mean of duplicates (+/- SD) with background readings subtracted

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

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