abcam

## Product datasheet

# Creatinine Assay Kit ab65340

★★★★★ 2 Abreviews 25 References 5 Images

### Overview

| | |
|---|---|
| **Product name** | Creatinine Assay Kit |
| **Detection method** | Colorimetric/Fluorometric |
| **Sample type** | Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids |
| **Assay type** | Quantitative |
| **Assay time** | 1h 00m |
| **Product overview** | Creatinine Assay Kit (ab65340) provides an accurate, convenient measure of creatinine concentration in biological fluids such as serum, urine or CSF. In the assay, creatinine is converted to creatine by creatininase, creatine is converted to sarcosine, which is specifically oxidized to produce a product which reacts with a probe to generate red color (λmax = 570 nm) and fluorescence (Ex/Em = 538/587 nm). Unlike picric acid assays, this kit is suitable for serum/plasma creatinine determinations, as well as for urine and other biological samples.<br><br>For deproteinization of samples: Better results are typically seen with this assay when using a 10kda filter for sample deproteinization than when using the PCA method.<br><br>Visit our FAQs page for tips and troubleshooting. |
| **Notes** | Creatinine is a breakdown product of creatine phosphate. Creatinine is produced and excreted at a constant rate, and blood creatinine is used to determine glomerular filtration rate (GFR), a measure of kidney function. Blood creatinine levels increase only in cases of significant (>75%) damage to nephrons. Creatinine clearance is frequently used as a means of standardizing excretion of other compounds such as isoprostanes. |

### Properties

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

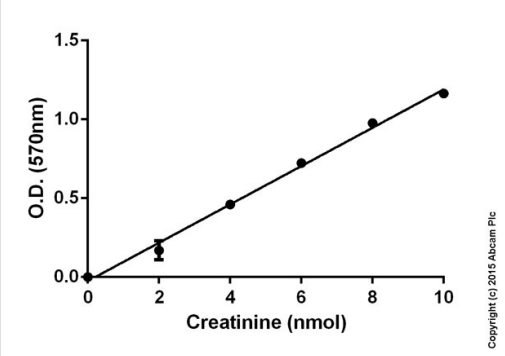
| Components | Identifier | 100 tests |
|---|---|---|
| Creatinase (Lyophilized) | Blue | 1 vial |
| Creatininase (Lyophilized) | Violet | 1 vial |

| Components | Identifier | 100 tests |
|---|---|---|
| Creatinine Standard (10 µmol) (Lyophilized) | Yellow | 1 vial |
| Creatinine Assay Buffer | WM | 1 x 25ml |
| Creatinine Enzyme Mix (Lyophilized) | Green | 1 vial |
| Creatinine Probe in DMSO (200ul) | | 1 x 200µl |

**Relevance**

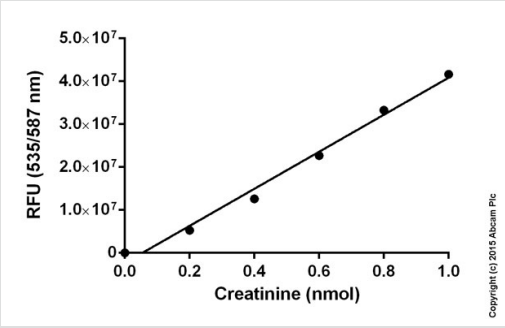
Creatinine, or creatine anhydride, is a breakdown product of creatine phosphate in muscle. The loss of water molecule from creatine results in the formation of creatinine. Creatinine is transferred to the kidneys by blood plasma, whereupon it is eliminated from the body by glomerular filtration and partial tubular excretion. Creatinine is usually produced and excreted at a fairly constant rate, and blood creatinine is used to determine glomerular filtration rate (GFR), a measure of kidney function.

## Images



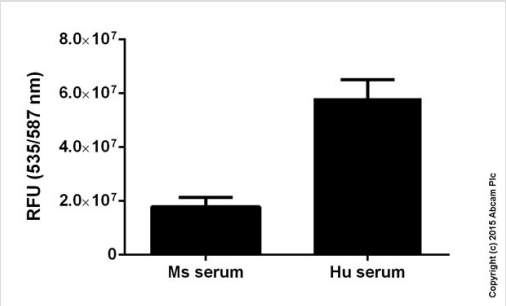

Functional Studies - Creatinine Assay Kit (ab65340)

Standard curve: mean of duplicates (+/- SD) with background reads subtracted



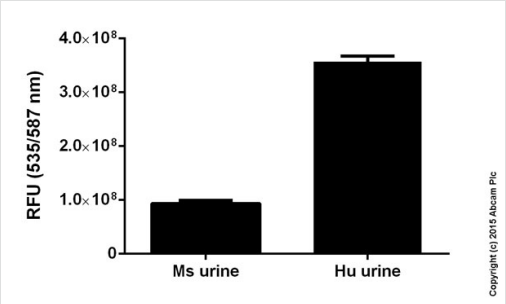

Functional Studies - Creatinine Assay Kit (ab65340)

Standard curve: mean of duplicates (+/- SD) with background reads subtracted



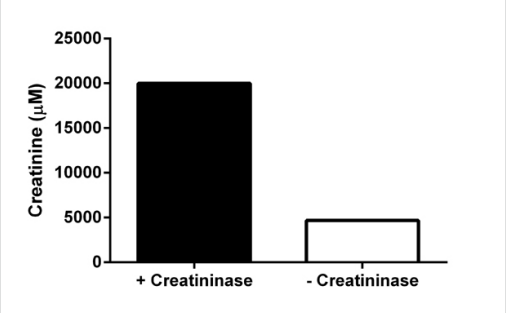

Functional Studies - Creatinine Assay Kit (ab65340)

Creatinine measured in mouse and human serum plotted against RFU. Samples were diluted 5-10 fold.




Functional Studies - Creatinine Assay Kit (ab65340)

Creatinine measured in mouse and human urine plotted against RFU. Samples were diluted 400-800 fold.




Immunodiffusion - Creatinine Assay Kit (ab65340)

Creatinine levels in filtered human urine was measured in the presence or absence of creatininase (background signal subtracted.



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