

Product datasheet

Creatinine Assay Kit ab65340

★★★★★ 1 Abreviews 17 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	<p>Creatinine Assay Kit (ab65340) provides an accurate, convenient measure of creatine 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 ($\lambda_{max} = 570 \text{ nm}$) and fluorescence ($Ex/Em = 538/587 \text{ nm}$). Unlike picric acid assays, this kit is suitable for serum/plasma creatinine determinations, as well as for urine and other biological samples.</p> <p>For deproteinization of samples: 10kda method works the beter for deproteinization when preparing samples as opposed to PCA method. It's possible that the chemicals used negatively affects the enzyme components of the assay kit.</p>

Visit our [FAQs page](#) for tips and troubleshooting.

Notes	<p>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.</p>
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Tested applications	Suitable for: Functional Studies
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Properties

Storage instructions	Store at -20°C. Please refer to protocols.
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Components	Identifier	100 tests
Creatinase (Lyophilized)	Blue	1 vial

Components	Identifier	100 tests
Creatininase (Lyophilized)	Violet	1 vial
Creatinine Standard (10 μ mol) (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 200 μ l

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.

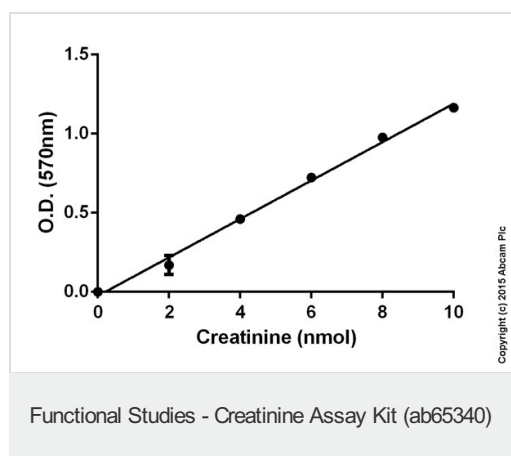
Applications

Our [Abpromise guarantee](#) covers the use of **ab65340** in the following tested applications.

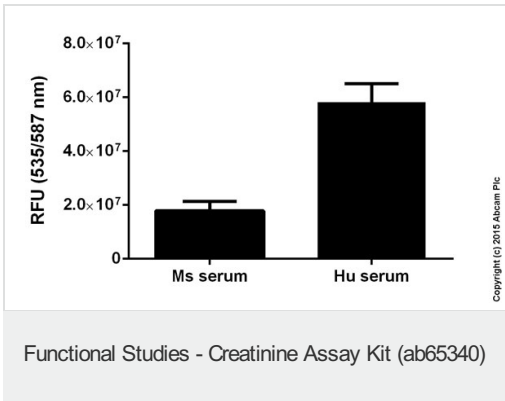
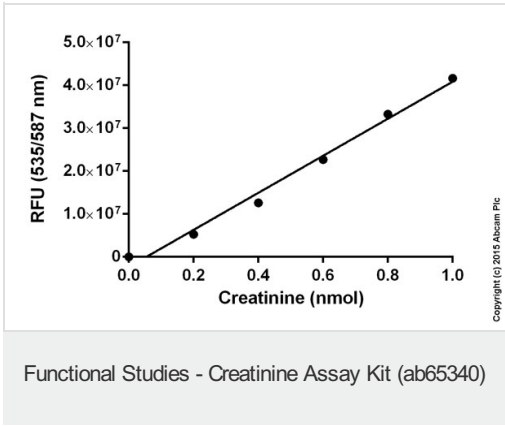
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Functional Studies		Use at an assay dependent dilution.

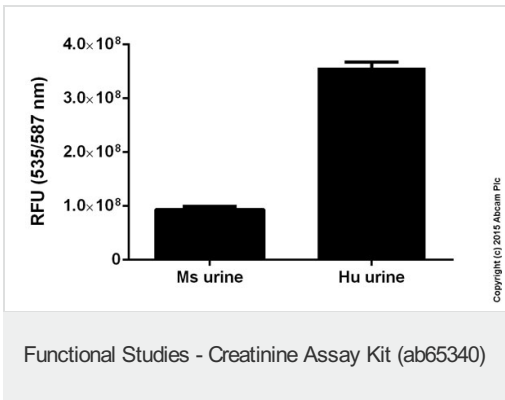
Images



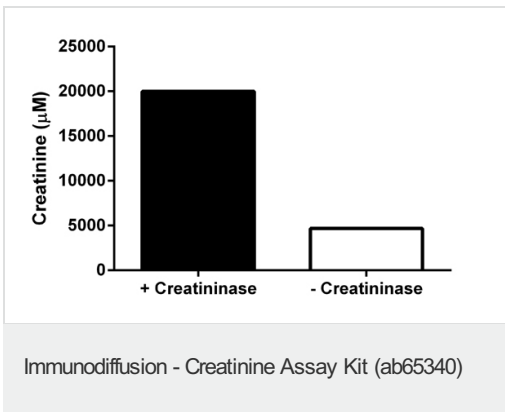
Standard curve: mean of duplicates (+/- SD)
with background reads subtracted



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



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



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

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