

### Urea Assay Kit ab83362

★★★★★ [3 Abreviews](#) [84 References](#) [6 Images](#)

#### Overview

<b>Product name</b>	Urea Assay Kit
<b>Detection method</b>	Colorimetric
<b>Sample type</b>	Cell culture supernatant, Urine, Serum, Plasma, Tissue Extracts, Cell Lysate
<b>Assay type</b>	Quantitative
<b>Sensitivity</b>	> 0.5 nmol/well
<b>Range</b>	0.5 nmol/well - 5 nmol/well
<b>Assay time</b>	1h 00m
<b>Product overview</b>	<p>Urea Assay Kit ab83362 is a rapid, simple, sensitive, and reliable assay used to quantify urea in a variety of samples such as serum, plasma, and urine, etc. It can be used as a blood urea nitrogen assay kit (BUN assay kit).</p> <p>In the urea assay protocol, urea is acted on by enzymes to form a product that reacts with a probe to generate color (OD<sub>max</sub>=570nm). The absorbance is directly proportional to the concentration of urea in the solution. The kit can detect as low as 0.5 nmol per well or 10 μM of urea.</p> <p>Urea assay protocol summary:</p> <ul style="list-style-type: none"> <li>- add samples and standards to wells</li> <li>- add reaction mix and incubate for 60 min at 37°C</li> <li>- analyze with microplate reader</li> </ul>
<b>Notes</b>	This product is manufactured by BioVision, an Abcam company and was previously called K375 Urea Colorimetric Assay Kit. K375-100 is the same size as the 100 test size of ab83362.
<b>Platform</b>	Microplate reader

#### Properties

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

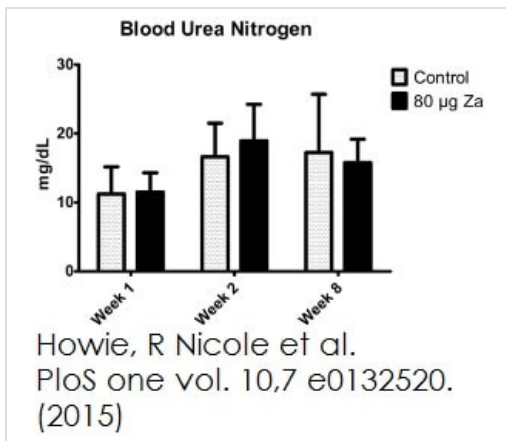
Components	100 tests	2000 tests
Assay Buffer XIV	1 x 25ml	20 x 25ml

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Converter Enzyme V	1 vial	20 vials
Developer I	1 vial	20 vials
Development Enzyme Mix I	1 vial	20 vials
OxiRed Probe	1 x 200µl	20 x 200µl
Urea Standard	1 x 100µl	20 x 100µl

**Relevance**

Urea is a waste product which is produced in the liver, dissolved in blood (in a concentration of 2.5 - 7.5 mM), and secreted by the kidneys. Urea also plays a very important role in protein catabolism, removal of toxic ammonia from the body, and the countercurrent system which allows for reabsorption of water and critical ions in the nephrons.

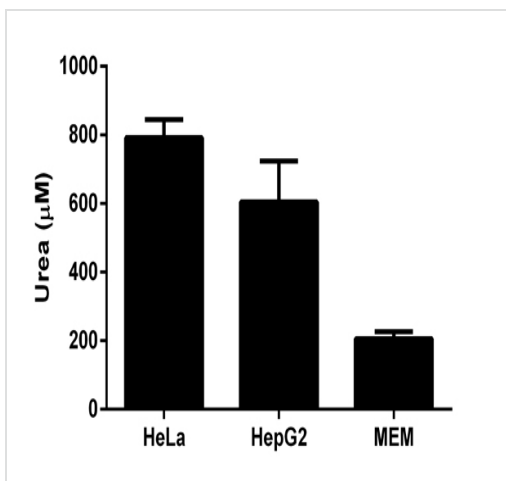
**Images**



ab83362 was used as a BUN assay (Blood urea nitrogen assay) to measure urea levels in 80 female Sprague-Dawley rats (age 10-12 months-old).

Functional Studies - Urea Assay Kit (ab83362)

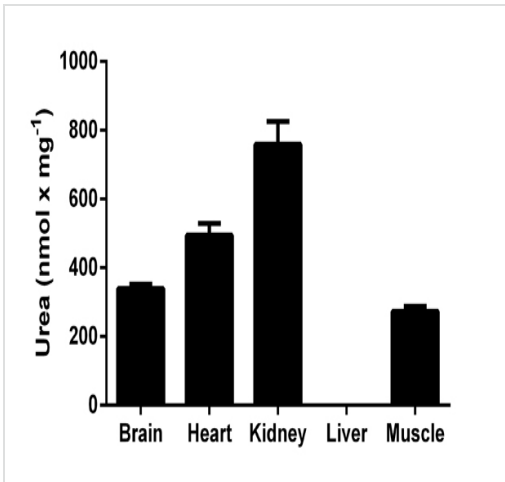
Howie, R Nicole et al., PloS one?vol. 10,7 e0132520., Fig 6, doi:10.1371/journal.pone.0132520



Urea measured in cell culture supernatants and control medium (MEM), background signal subtracted (duplicates +/- SD).

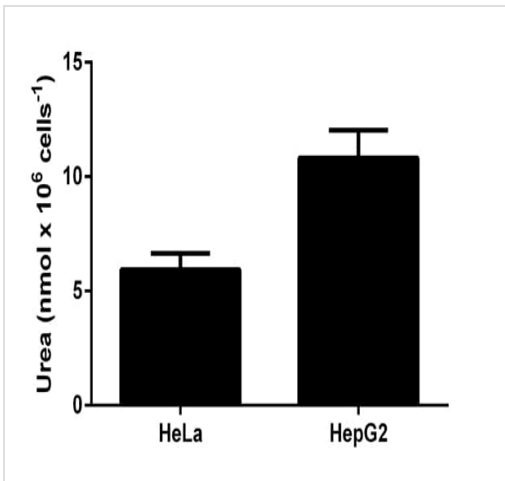
The samples were tested neat; 1:4; 1:16 and 1:64. Only the latter two gave reliable results.

Functional Studies - Urea Assay Kit (ab83362)



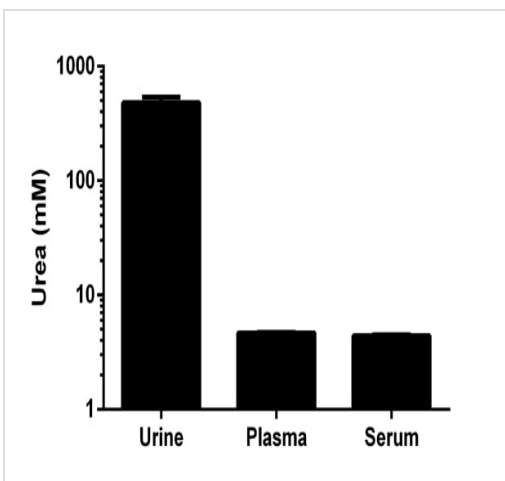
Urea measured in mouse tissue lysates (mg of extracted protein), background signal subtracted (duplicates +/- SD).

Functional Studies - Urea Assay Kit (ab83362)



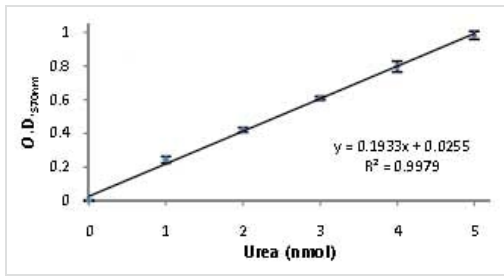
Urea measured in cell lysates, background signal subtracted (duplicates; +/- SD).

Functional Studies - Urea Assay Kit (ab83362)



Urea measured in biological fluids, background signal subtracted (duplicates; +/- SD).

Functional Studies - Urea Assay Kit (ab83362)



Example of Urea standard curve using ab83362

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**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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