



May 10,  
2019

Working

## U Mass - Urea/BUN [↗](#)

Jason Kim<sup>1</sup>

<sup>1</sup>University of Massachusetts

dx.doi.org/10.17504/protocols.io.x5qfq5w

Mouse Metabolic Phenotyping Centers

Tech. support email: [info@mmpc.org](mailto:info@mmpc.org)

Lili Liang

### ABSTRACT

#### Summary:

This experiment involves a spectrophotometric measurement using Roche Cobas Clinical Chemistry Analyzer. Serum Urea/BUN levels are affected by alterations in systemic protein and nitrogen metabolism. Serum Urea/BUN levels are altered in kidney failure and renal complications of diabetes.

### EXTERNAL LINK

<https://mmpc.org/shared/document.aspx?id=187&docType=Protocol>

### MATERIALS

NAME	CATALOG #	VENDOR	CAS NUMBER	RRID
Urea/BUN	04657616 190	Roche		
Calibrator f.a.s.	10759350 360	Roche		
Precinorm U plus	12149435 160	Roche		
Precipath U plus	12149443 160	Roche		
NaCl Diluent 9 %	04774230 190	Roche		
Chimneys	11930630 001	Roche		
Cleaner	04774248 190	Roche		
Micro Sample cups	11406680 001	Roche		
NERL High Quality Water	9805	Fisher Scientific		

### MATERIALS TEXT

#### Note:

Roche, [RRID:SCR\\_001326](#)

Fisher Scientific, [RRID:SCR\\_008452](#)

### BEFORE STARTING

#### Notes:

✓ Try to use freshly prepared serum and plasma samples for this assay.

✓ No dilution or treatment of the sample is required, but plasma samples should be centrifuged to remove any fibrin/fibrinogen clumps.

✓ Samples should be stored at 2-8°C for 24 hours prior to analysis. For longer periods, store samples at -70°C, and avoid repeated freeze/thaw cycles.

✓ A 50 µl dead volume is required in addition to sample volume for multi-protein analysis (typically 1-5 µl).

- 1 Perform daily quality control assessment of instrumentation before analysis.
- 2 Load each sample into a specialized micro-sample cup for the clinical chemistry analyzer.
- 3 Select Urea/BUN test on display and run the analysis.
- 4 Collect and analyze the data.



This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited