Urine Samples - DUR2 Protocol

Standards. Prepare 200 µL 100 mg/dL Premix by mixing 100 µL of the Standard (200 mg/dL) and 100 µL dH_2O. Dilute standards in 1.5-mL centrifuge tubes as described in the Table.

No	100 mg/dL Premix + H_2O	Urea (mg/dL)
1	100 µL + 0 µL	100
2	60 µL + 40 µL	60
3	30 µL + 70 µL	30
4	0 µL + 100 µL	0

Urine Samples. Dilute 50-fold in dH_2O (n=50). Add 20 µL of each urine sample to two separate wells in a 96-well plate (each sample requires a sample blank). Then, follow steps 2 & 3 on the kit datasheet for urea detection.

Calculation:

Subtract the blank value (#4) from the standard values and plot the ΔOD against standard concentrations. Determine the slope and calculate the urea concentration of the Samples as follows:

$$[\text{Urea}] = \frac{R_{SAMPLE} - R_{BLANK}}{\text{Slope}} \times n \quad \text{(mg/dL)}$$

where R_{SAMPLE} and R_{BLANK} are OD readings of the Sample and Sample Blank respectively. n is the sample dilution factor.