


Biomedical Systems Laboratory NTUA	WORK ORDER FORM BCA- Total Protein	
Jacob's Thesis	Chronis/Alexopoulos Jacob	
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OBJECTIVES

Measurement of Total protein in a sample.

Rationale


We want to measure the concentration of the total protein in a concrete sample.

In this project, we want to test if the concentration of the total protein in the collected saliva sample from the lollipop is the same with the concentration that comes from a sample collected via passive drooling.

Experimental Procedure

Steps (based on the Takara kit):

- From the BSA standards (they are in the incubators on the door of the fridge), place 25 μ L/well of the shown concentrations in the wells A1: H3. In case there are no BSA standards left, check inside the Takara kit to prepare the BSA standards.
- In the wells A4:F6 there should be 25 μ L/well of sample + solvent IN TOTAL. For solvent use DPBS (on the first shelf of Wet Lab). Depended on the sample, use different amount of solvent to have the results inside the final curve.
- E.g., for 1:1 sample-solvent concentration, use 12.5 μ L of sample and μ L of solvent.
- In order to have a better solution in the final well, it is recommended to create each row of the matrix A4:F6 in different tube and stir it a little bit.
- In row G4:6 use BLANK, which means that the user should place 25 μ L DPBS/well. This one is used for denoising by the various scan program.
- 200 μ L/well of working solution is needed. This applies to ALL wells. In order to create the working solution, use from the Takara kit the Reagent A and the Reagent B.
- Use 100 Reagent A: 1 Reagent B. For example, if we want to create working solution for 45 wells, we need $200 \times 45 = 9000$ μ L of working solution. We use a safety factor of 1.2, so that we don't run out of working solution, that's why we create 10.8 mL. To create this quantity, we use 10.69 mL of Reagent A and 107 μ L of Reagent B.
- After that, place 200 μ L of the working solution inside each well and let the plate for 1 hour to incubate.
- Finally, use the various scan PC for the total protein measurement. Check the tutorial (7 mins. video) that is on the desktop of the Wet Lab's PC about how to use the Various Scan.

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Design Template:

	1	2	3	4	5	6
A	2000	2000	2000	Sample 1 1:1	Sample 1 1:1	Sample 1 1:1
B	1500	1500	1500	Sample 1 1:2	Sample 1 1:2	Sample 1 1:2
C	1000	1000	1000	Sample 1 1:5	Sample 1 1:5	Sample 1 1:5
D	750	750	750	Sample 1 1:10	Sample 1 1:10	Sample 1 1:10
E	500	500	500	Sample 1 1:20	Sample 1 1:20	Sample 1 1:20
F	250	250	250	Sample 1 1:50	Sample 1 1:50	Sample 1 1:50
G	125	125	125	BLANK	BLANK	BLANK
H	0	0	0			

RESULTS

Results Folder:

Wet Lab – Main PC (next to Various Scan Machine)

In this project: Jacob

Raw Data Filename:

Results Analysis Filename:

Notes-Conclusions:

DECISION ITEMS AND ACTION ITEMS