Assay Assignment (LS2102)

Submission Deadline on Welearn (only): 12/10/2020

1. Define specific activity of the enzyme and list the units commonly used (2)

2. What is the main difference between a stopped assay and a continuous assay? (2)

3. In the laboratory, you have isolated an enzyme that converts the amino acid L-Phe to L-Tyr. Knowing that both are amino acids,

    a. Indicate how you may be able to monitor the activity of such an enzyme (2)
    b. If K_m of the reaction is 0.8 mM, what should be the concentration of L-Phe that you use in the activity assay (2)
    c. How would you experimentally determine the optimum amount of enzyme to use when designing the assay (2)

4. You wish to determine the steady-kinetics of an enzyme that converts cellobiose to glucose by the LB plot.

a. Indicate stepwise how you will do it. (5)
b. You wish to determine if the enzyme is inhibited by the reaction product glucose. What will you modify the above procedure to determine the same. (5)