Homework #1

due: Sep 20 (Thu), in class

How do maximum rate of an enzyme reaction (v_m) and half-velocity constant (K_M) change by "product inhibition"? To answer the question, apply the mathematical approach we practiced in the class to derive the rate expression for an enzyme reaction under product inhibition.

(50 points)

Hints:

- 1) Assume that the product (P) reversibly binds to the enzyme-substrate complex (ES) but not to the free enzyme (E).
- concentration of 2) Assume pseudo-steady state for the the enzyme-substrate-product complex (ESP).