

Steps
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(A) 3ml of phosphate buffer — blank

3ml of 3 unknown solutions total

(1) add 20ml of goat liver + 2980 buffer

(2) add 40ml of goat liver + 2960 buffer

(3) add 60ml of goat liver + 2940 buffer

(B) Spectrophotometer to 280 nm, measure blank + 3 unknowns

1. 0.201 Ab

2. 0.439 Ab

3. 0.735 Ab

(C) Dilution factor

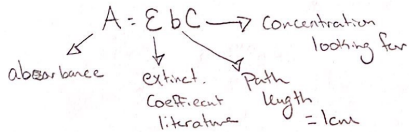
$$1. \frac{3000}{20} = 150$$

$$2. \frac{3000}{40} = 75$$

$$3. \frac{3000}{60} = 50$$

① Beer Lambert's Law

[ratio  $\uparrow A \propto \uparrow C$  or  $\downarrow A \propto \downarrow C$ ]



Extraction of lactate dehydrogenase

- liver goat
- muscle
- heart

1. 0.135 M concentration
2. 0.295 M concentration
3. 0.493 M concentration

$$\textcircled{1}. A = \epsilon BC$$

$$0.201 = (1.49) (l) C$$

$$0.135 = C \text{ concentration.}$$

$$\frac{1}{\text{meter}} \times \text{---}$$

$$M^{-1} = \frac{1}{M} \cdot \frac{l}{cm}$$

$$0.201 = 1.49 M^{-1} \cancel{cm^{-1}} \times 1 \cancel{cm} C$$

$$0.201 = 1.49 M^{-1} \times C$$

$$\textcircled{2}. 0.439 = (1.49) (l) C$$

$$0.295 = C \text{ concentration}$$

$$C \times 1.49 M^{-1} = 0.201$$

$$\textcircled{3}. 0.735 = (1.49) (l) C$$

$$0.493 = C \text{ concentration}$$

$$C = \frac{0.201}{1.49 M^{-1}}$$

$$= \textcircled{0.135 M}$$

$$C \times 1.49 M^{-1} = 0.439$$

$$C = \frac{0.439}{1.49 M^{-1}} = 0.295 M$$

$$C \times 1.49 M^{-1} = 0.735$$

$$C = \frac{0.735}{1.49 M^{-1}} = 0.493$$

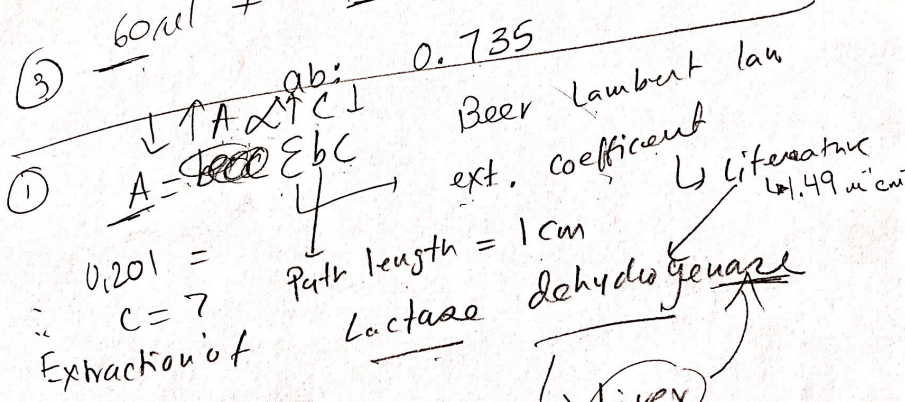
d.f

$$\frac{3000}{20} = 150$$

① 20 ml prot + ~~3000~~ 2980 ml buffer = 3000 ml ab = 0.201

② 40 ml + ~~3000~~ 2960 ml = ~~3040~~ 3000 ml ab = 0.439  $\frac{75}{40} = 75$

③ 60 ml + 2940 ml = ~~3000~~ 3000 ml ab = 0.735  $\frac{50}{60} = 50$



∴ 0.201 =  
C = 7  
Extraction of

- ↳ liver
- ↳ muscle
- ↳ heart