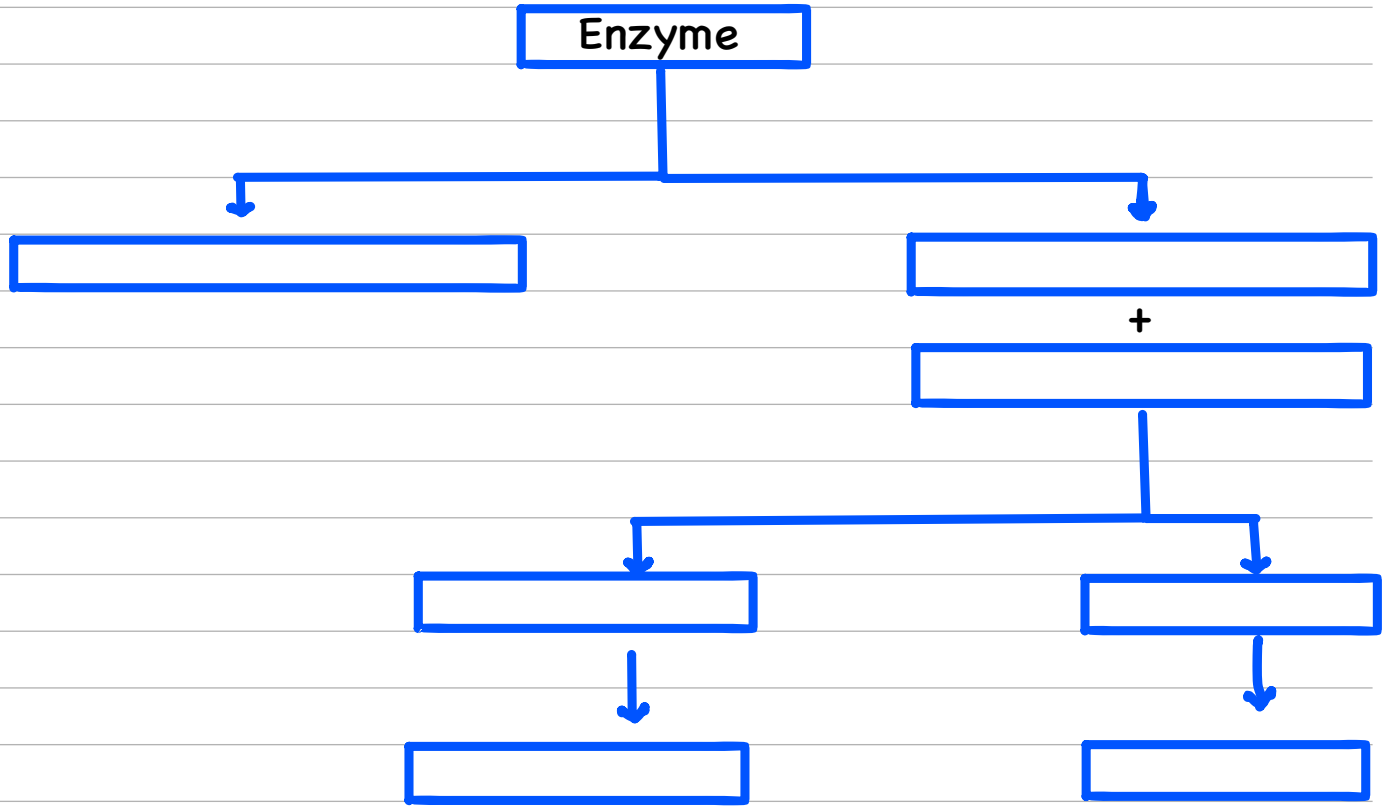
Chapter 32
Enzyme

- Mosty enzyme are made up ……

- If enzyme is made up of ……c/a
  Eg -

- Types of enzyme



Enzyme	Coenzyme	Enzyme	Cofactor
Kinase		Lactate dehydrogenase	
Dehydrogenase		Xanthine oxidase	
Transaminase		Lipase	
Carboxylase		Lysyl oxidase	
Decarboxylase		Tyrosinase	
Methylmalonyl coA Mutase			
Transketolase			

Classification of enzyme

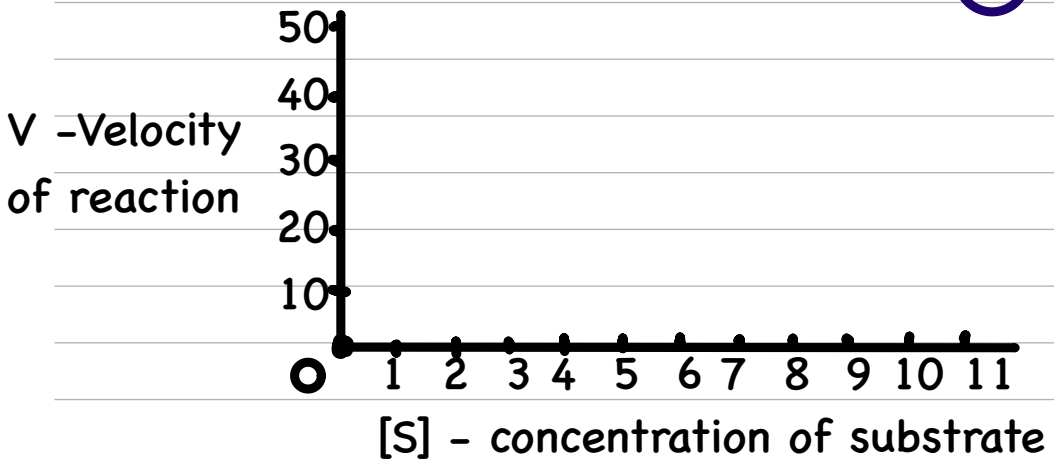
Class	Function	Category	Example
	Helps in oxidation /Reducation.		Oxidase Peroxidase ……
	Helps in tranfer of group		Ketotransferase ……
	Breakdown with help of H2O		Lipase Amylase
	Breakdown without of H2O		Aldolase Arginosuccinase
	Helps in isomer formation		Epimerase Racimerase
	Ligation of 2 molecule with help of ATP		Synthetase

Michalis menten theory

$$Vi = \frac{Vmax + [S]}{Km + [S]}$$

Intial velocity of reaction -
Maximum possible velocity of reaction -
Concentration of substrate -
Km-

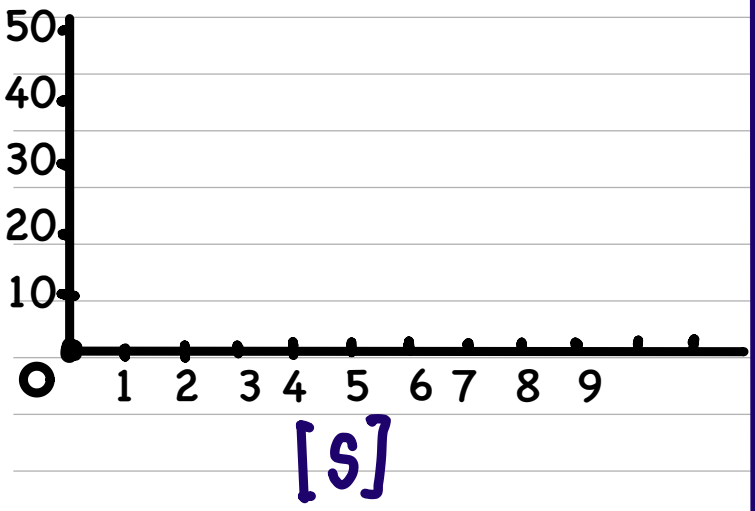
S → Enzyme → P



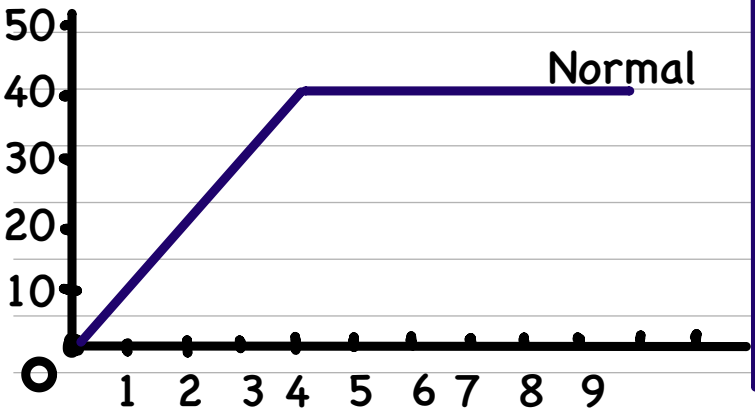
Enzyme inhibition

Competitive inhibition

S → (Enzyme) → P



S → (Enzyme) → P
+ comp. ihhibitor

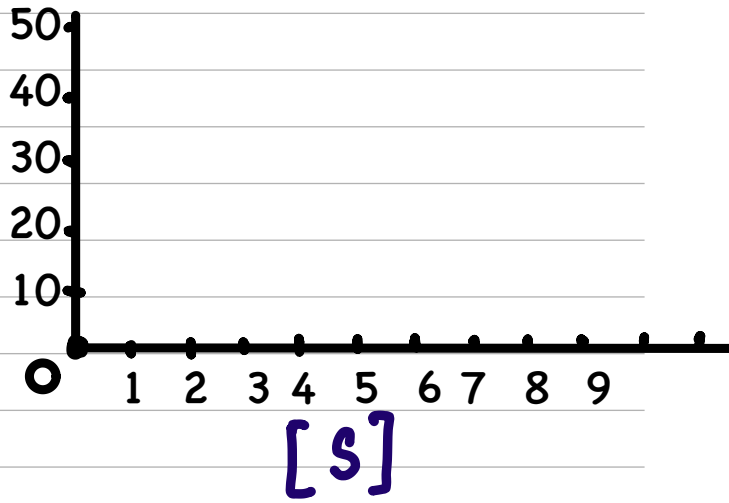


Vmax -

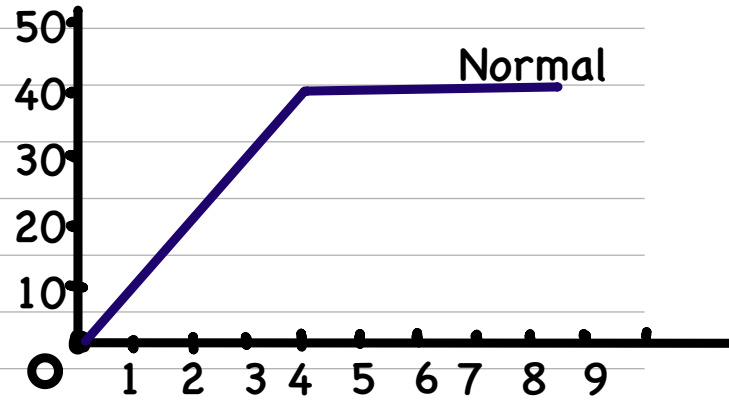
Km

Non- competitive inhibition

S → (Enzyme) → P



S → (Enzyme) → P
+ non-comp. ihhibitor



Vmax -

Km

Enzyme inhibited	enzyme inhibitor
Angiotensin converting Enzyme # Xanthine oxidase # Acetaldehyde dehyrogenase # HMG co A reductase #	

Details of lactate dehdrogenase

Types -

Overall highest level -

Highest in cardiac muscle -

So normally -

In Myocardial infraction

$$Km \propto \frac{1}{\text{Efficacy of enzyme}}$$

Type your

- Hexokinase v/s glucokinase

	Hexokinase	Glucokinase
Km		
Efficacy		
Effect Of Insulin		