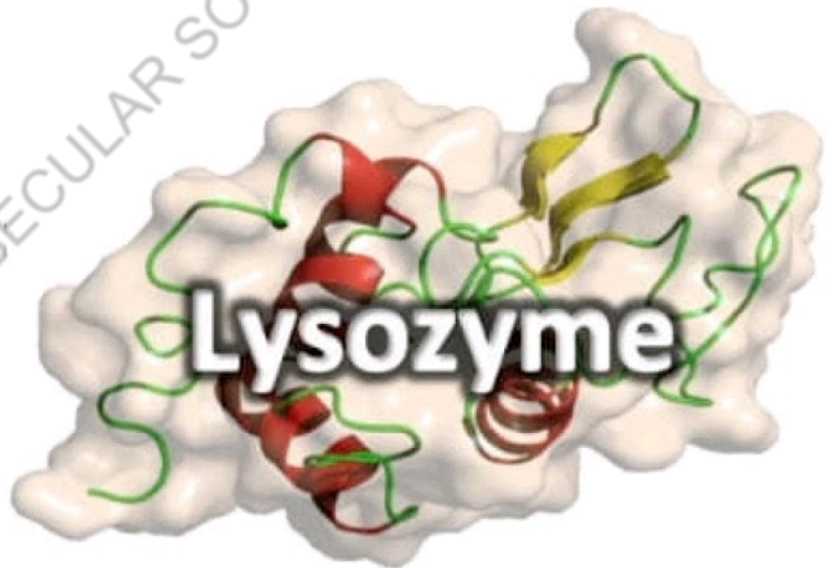


Enzymes!



+





Enzymes → These are the biological catalyst.
produced by living organism. They accelerate
biochemical reactions

→ They are vital for life and serve a wide range
of important function in body. such as in
Digesting.

→ Enzymes are proteins that control the speed of
chemical reactions in your body.

→ Enzymes also helps the cells to communicate with
each other, keeping cell growth, life and death
under control

Papaya - syn - Pappali

B.S → Papaya consist of the fruit of the
plant "Carica papaya Linn"

Family - Caricaceae.

G.S → Sri Lanka, Hawaii, America.

Chemical test Opium →

Opium

Meconic acid test

Opium dissolved in water

↓

Filter

↓

Filterate + FeCl_3 solⁿ

↓

Deep reddish purple
colour

↓

add 2- drops of HCl

↓

Colour becomes darker

Uses → analgesic, Heroin emetics, Codeine cough
in poisoning syrup.

B.S → *Papaver somniferum*

F → Papaveraceae

D → India, Afghanistan, China

C.C → Phenylamine, Tyrosine, codeine, papaverine

Distribution. India, Pakistan, China,
Afghanistan



Diastase

DIASTASE (डायास्टेज)

- ⇒ Diastase is an enzyme found in malt and produced when the seed germinate. The enzyme converts starch into maltose and then into glucose.
- ⇒ Diastase occurs as a yellowish white, amorphous powder, with a faint characteristic odour.

* Synonyms (समानार्थी)

- ⇒ maltin, Diastase of malt, Amylase, and malt extract.

* Biological source (जैविक स्रोत)

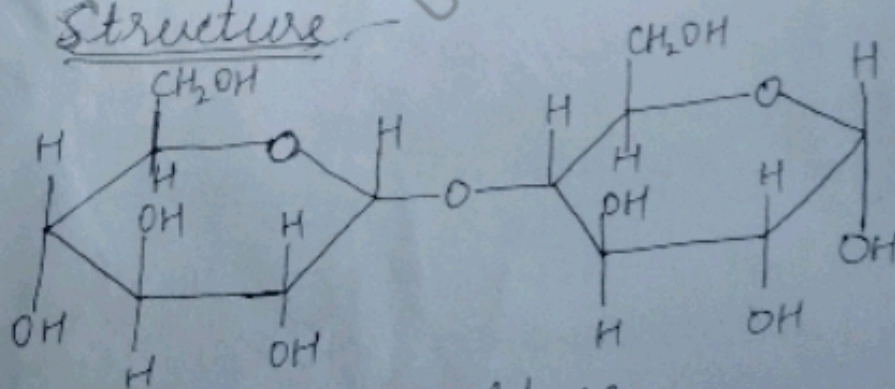
- ⇒ malt extract is obtained from the dried barley grains of one or more varieties of "*Hordeum Vulgare* Linne".

* Family: Poaceae

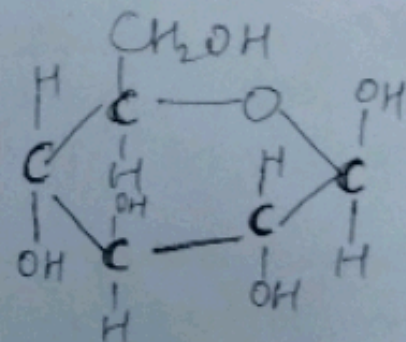
* Chemical constituents: (रासायनिक घटक)

- ⇒ Diastase contains dextrin, maltose, traces of glucose (दूधकाज के निशान), amylolytic enzyme diastase (8%).

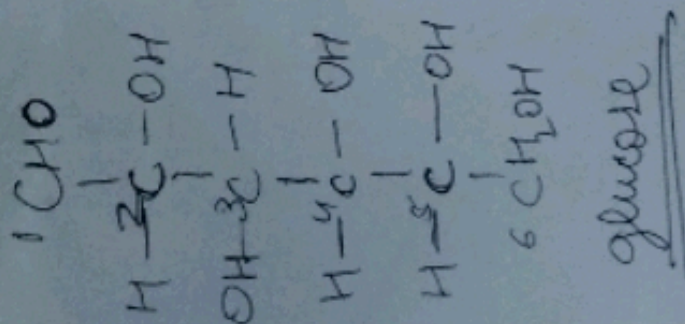
Structure



maltose



Glucose



glucose

ENZYMES

Introduction:

- ⇒ ~~The~~ Enzymes are proteins that catalyse or increase or increase the rate of chemical reactions.
- ⇒ The Enzymes are specific and effective protein molecules (except RNAs) that catalyse almost all biochemical reactions.
- ⇒ Sometimes non-protein coenzymes or cofactor are also required for the catalytic functions of enzymes.
- ⇒ Some properties of enzymes are briefed below:-
 - ⇒ All enzymes are proteins, except group of catalytic RNAs
 - ⇒ The molecular weight of enzyme ranges from 12,000 to 1 million or more like other protein molecules.
 - ⇒ The catalytic activity of enzymes is mainly due to their own primary, secondary, tertiary and quaternary structures of protein and their specific conformation. The catalytic activity of enzyme gets destroyed in case of denaturation or dissociation into sub-units.
- ⇒ Holoenzymes are the catalytically active enzyme made up of coenzyme or metal ions (non-protein part) and apoenzyme or apoprotein (protein part)
- ⇒ Enzyme activity can be regulated by some processes such as phosphorylation, glycosylation, etc, these processes alter the structure of a protein found in the enzyme.

Therapeutic Efficacy (uses) (निम्नलिखित प्रभाव)

- ⇒ Diastase contains dextrin, maltose, traces of (1) malt extract and purified diastase are used as amylolytic enzyme.
- (2) They serve as an aid in digestion of starch
- (3) They are used as a bulk producing laxative.

PANCREATIN (पैंक्रैटिन)

- ⇒ Pancreatin is a compound made up of various digestive enzyme produced by the exocrine cells of the pancreas.
- ⇒ Amylase, lipase, and protease make up this enzyme.
- ⇒ This mixture is used to treat surgical pancreatotomy pancreatitis (सर्जिकल 312-11/14/19/14) and cystic fibrosis that cause a lack of pancreatic secretions.
- ⇒ Food allergies, celiac illness, autoimmune disease, cancer and weight loss have all been claimed to benefit from it.

Synonyms:

- ⇒ Diastase Vera, Zynpar, Pancreatic acid, Penderistanone.

Biological Source:

- ⇒ Pancreatin can be obtained from either animal or plant sources. Amylase, lipase and protease are the primary enzymes that contain pancreatin.
- ⇒ Pancreatin is often generated from cattle or pigs, although it can also be obtained from plants.

Pancreatin Pellets



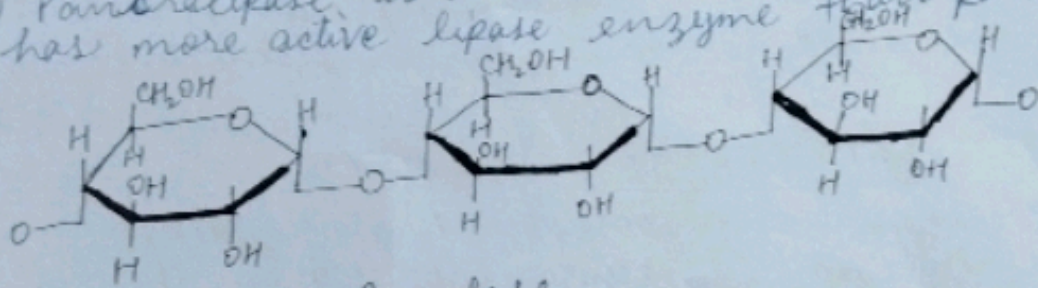
MKPPL
MURLI KRISHNA
PHARMA PVT. LTD.

Family: - Sidae and bovide.

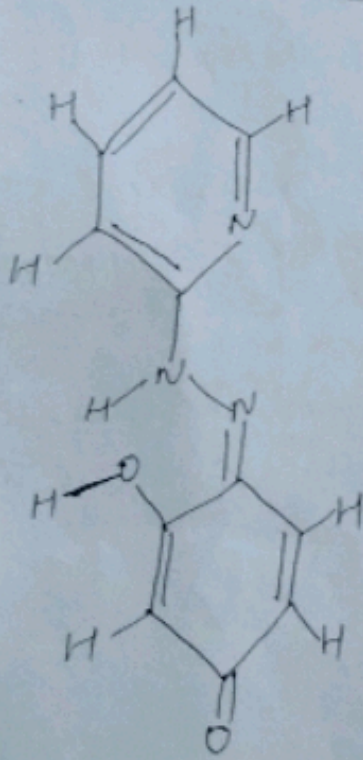
Chemical constituents: (रसायनिक घटक)

→ Amylase, lipase, and protease are all found in the pancreatin

→ Pancrelipase is a similar blend of enzymes that has more active lipase enzyme than pancreatin.



Amylase



Lipase

A Therapeutic efficacy (चिकित्सीय प्रभावकारिता)

→ Pancreatin enzymes help in the breakdown of various nutrients, like protein, fats and carbohydrates which convert in into body energy.

→ It promotes absorption of essential vitamins and minerals.

Yeast (२९५२)

- Yeast is a fungus which have a vegetative body of simple individual cell under normal growth conditions. It is a unicellular fungus which spreads by forming mycelia containing small and definite nuclei and reproducing by budding and ascospore foramen.
- Around 350 species of yeast are known so far. Yeasts are classified based on their uses and morphological characters.
- Some common examples of different types of yeast are wine yeast, baker's yeast, brewer's yeast, and distiller's yeast. Either the brewer's yeast or the baker's yeast is employed in pharmaceutical industries.

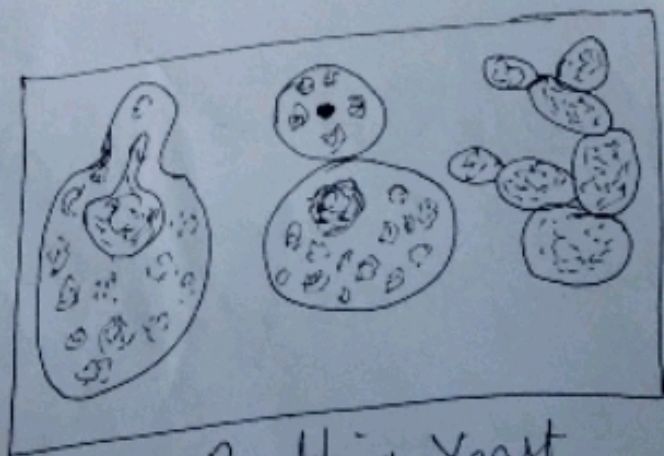
Synonyms (२५१०१०१०१)

Brewer's yeast and Baker's yeast.

Biological Source (२५१०१०१०१)

- Yeast is the unicellular fungal microorganism "*Saccharomyces cerevisiae*".

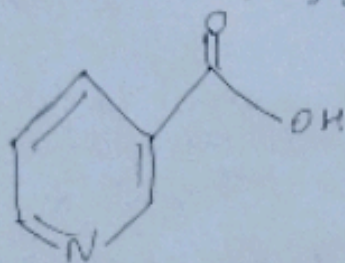
Family "*Saccharomycetaceae*".



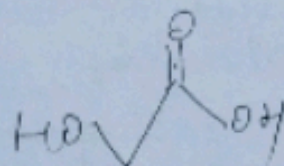
Budding Yeast

Chemical constituents (रासायनिक अंश)

Yeast contains moisture (65-85%), nitrogenous compounds (proteins), glycogen, fat, vitamins (thiamine, riboflavin, nicotinic acid, pantothenic acid, folic acid, biotin etc) ash, and the enzyme invertase, diastase, zymase and maltase.

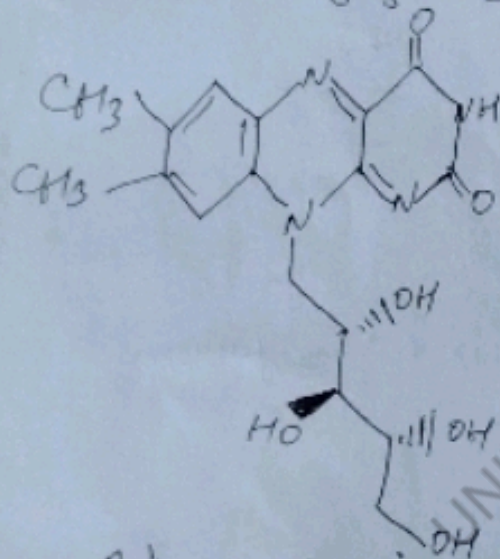


Nicotinic Acid

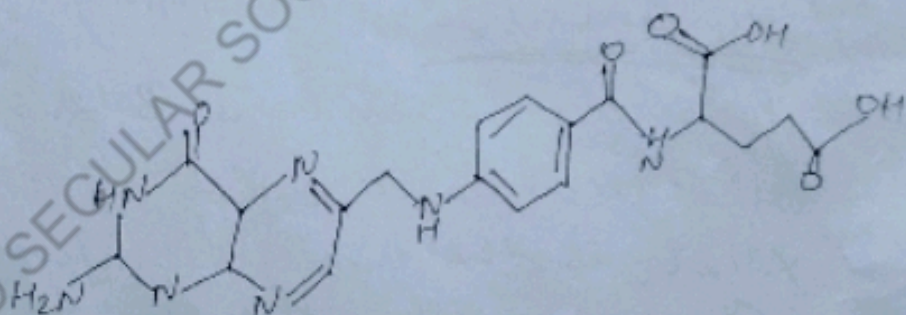


Glycolic Acid

Formula $C_6H_5 \cdot NO_2$



Riboflavin



Folic Acid

Therapeutic efficiency . Uses (चिकित्सकीय प्रभाव)

- Yeast has the following therapeutic properties
- It is used for manufacturing alcohol, beer and various wines.
- It is used in the bread industry to raise dough
- It is a good source of protein
- Irradiated (पड़ोता) yeast has been used as a source of vitamin D.