

Summary of the types of media

Classification of media

Broth media
fluid media
in a tube

Petri dish
solid media on
a plate.

Types of Media

Simple media

- basic requirements for bacterial growth.

Examples

Pepton water
Consist of:-
pepton
+ 0.5% of NaCl solution

Nutrient broth
Consist from:-
meat extract (small tubes)

Nutrient agar

Consist of:-
* nutrient broth
+ 2% agar (solid)

build together and let to solidify at room temperature.

(Semi solid).

* Suitable for

- *Staphylococcus aureus*.

Enriched Media

- for fastidious bacteria that require more than proteins and nutrients to grow, it needs other nutrients.

Examples:-

Blood agar

Consist from:-
* Nutrient broth
+ * sheep blood. (Don't contain any antibodies)

* good for the growth:-

- *Strepto Coccoi*

- *Strept. pyogenes*

Chocolate agar

Consist from:-
* Nutrient agar (Heated at 45°C)

+ * blood (Hemoglobin (Hb))

Hematin ← broken down upon heat.
Chocolate coloured.

* good for the growth:-

- *Haemophilus*

- *Pneumococci*

Selective Media

* it allows a certain bacteria to grow and inhibit others.

Examples:-

Lewenstein Jonson Media

Selective material:- *Malachite green*

Bacteria allowed to grow:- *Mycobacterium tuberculosis*

Blood tellurite agar

Selective material ⇒ *Potassium tellurite*.

Bacteria allowed to grow ⇒ *Coronea bacterium diptheria*.

Differential Media

Consist of:-

Selective + indicator

the only difference from Selective media

Examples:-

TCBS agar

Consist of:-

- Thiomol sulfon

- bile

- Sucrose ⇒ best sugar

it test the ability for a bacteria to ferment sucrose

→ Bromothymol blue
yellow ← turns to

Mannitol Salt

Sugar

(high salt 7.5% NaCl).

phenol Red = pH indicator.

change color

used to identify the ability of the bacteria to ferment mannitol into an acid. ↓ pH

- Lactose as best sugar

- bile (Enterobacteria).

- peptone (Nitrogen source).

- (Neutral red) = pH indicator

Test the ability of bacteria to

ferment Lactose into Lactic acid. ↓ pH

Neutral Red (Yellow → Pink).

MacConkey's agar