

Medium (plural media) :

It is the environment where the microorganisms live and get their nutrients in order to grow and reproduce in the laboratory .

Components of the Typical Media :

1. Carbon source .
2. Nitrogen source .
3. Phosphorous source .
4. Water source .
5. Source of minerals e.g. Fe , Mn , Na , K , Zn , Mg... etc .
6. Source of vitamins and amino acids .

Solidifying Agents :

1. Agar :

- Obtained from seaweeds.
- No nutritive value .
- Not affected by the growth of the bacteria.
- Melts at 98°C & solidifies at 42°C .
- 2% agar is employed in solid medium

2. Gelatin :

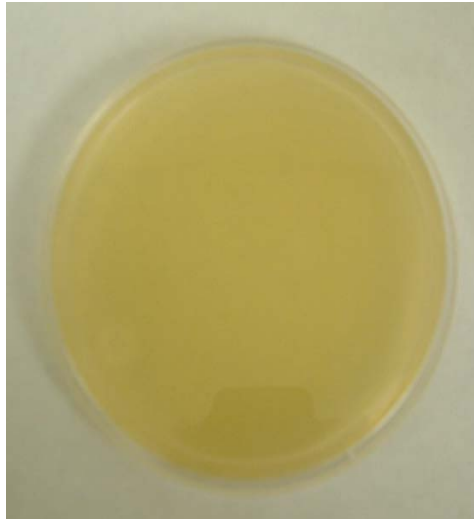
- Not satisfactory .
- Liquefies at 24°C .
- Has nutritive value .
- Affected by the growth of the bacteria.

Types of Media

I. Based on Their consistency:

1. Solid media – contains 2% agar

- Colony morphology, pigmentation, hemolysis can be appreciated.
- Eg: Nutrient agar, Blood agar



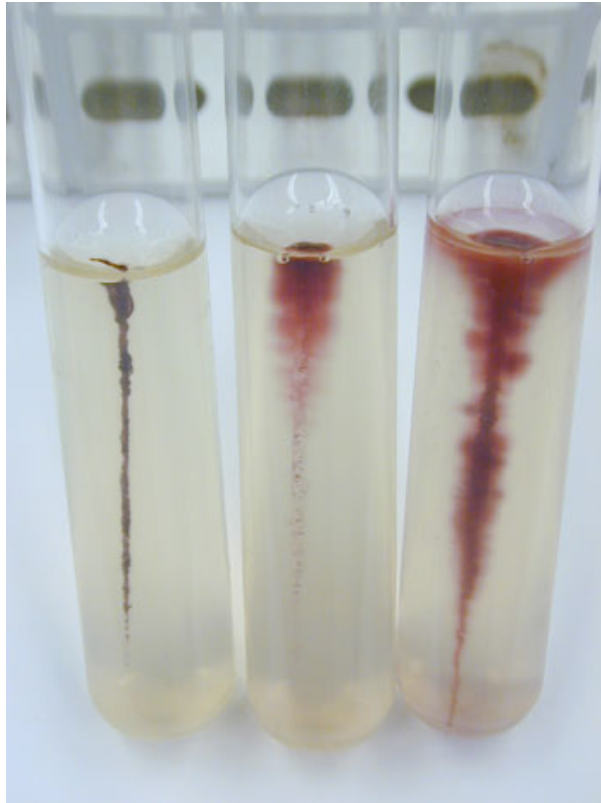
2.Liquid media – no agar.

- For inoculum preparation, Blood culture, for the isolation of pathogens from a mixture.
- Eg: Nutrient broth



3.Semi solid medium – 0.5% agar.

Eg: Motility medium



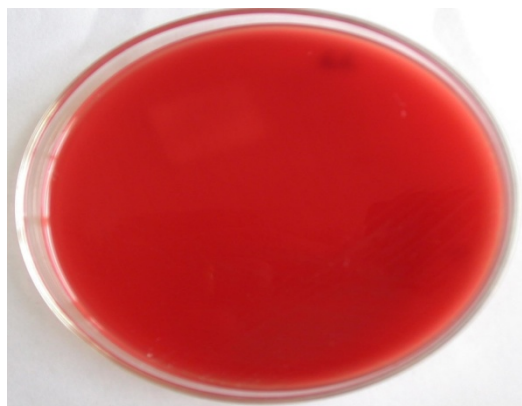
II. Based on the constituents/ ingredients

- a) simple medium
- b) complex medium
- c) synthetic or defined medium
- d) Special media

Special media:

1.Enriched media :

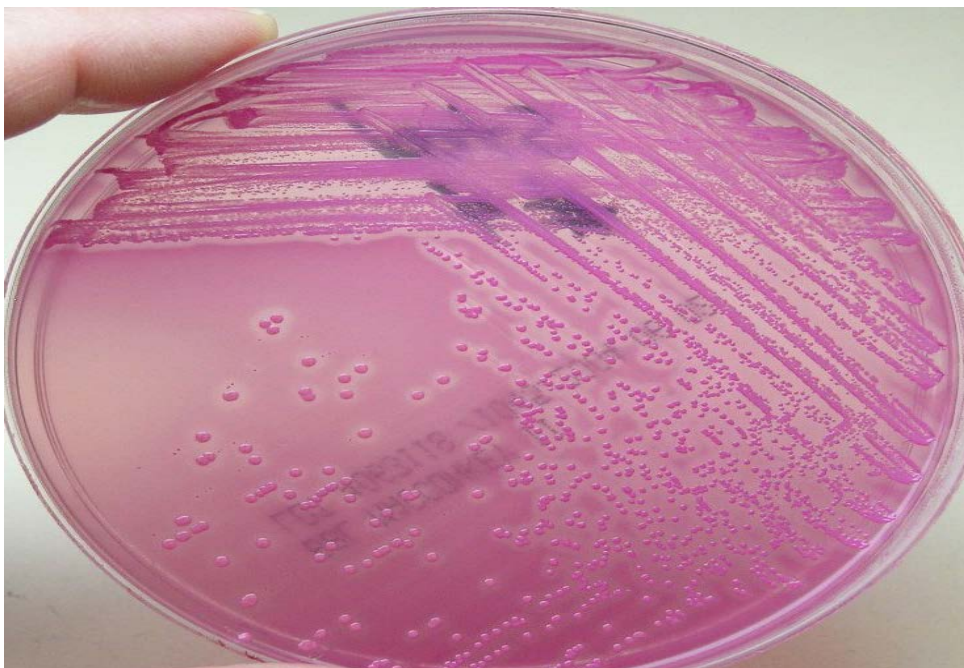
Eg: Blood agar, Chocolate agar



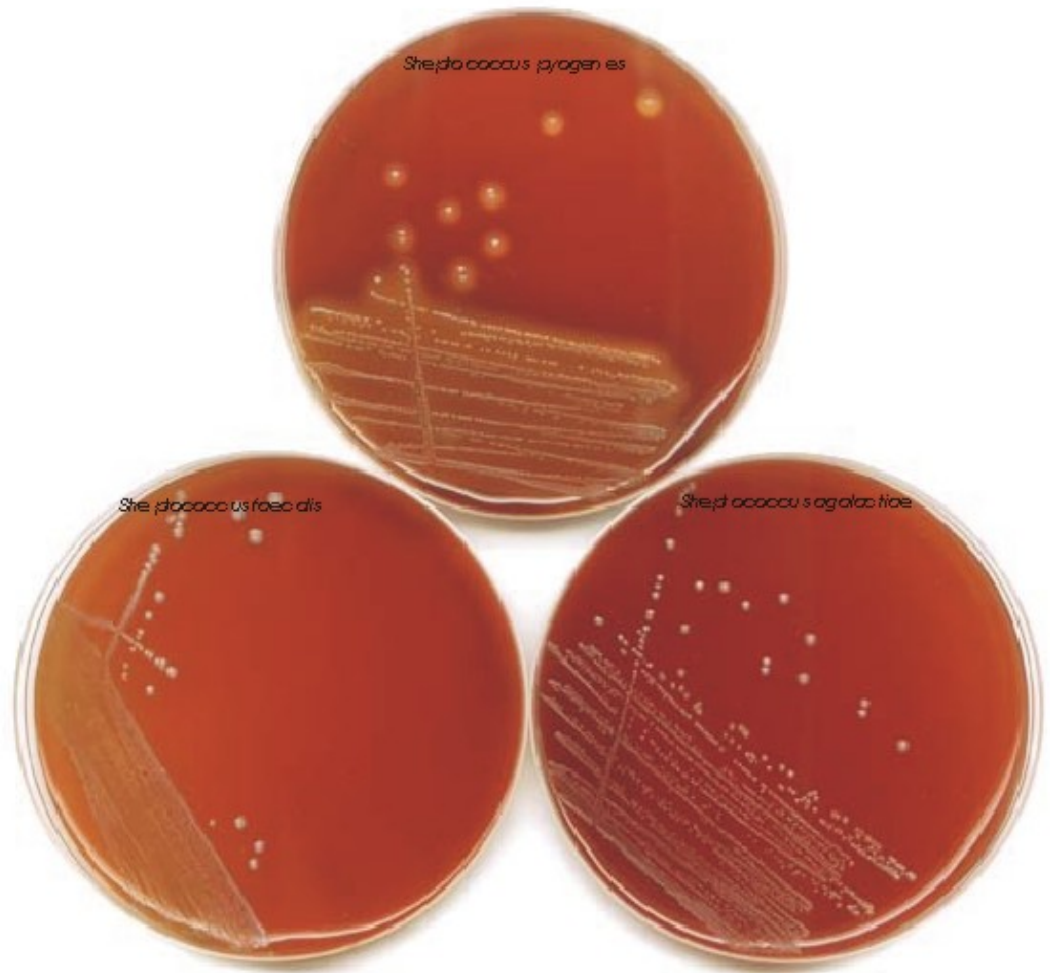
2.Enrichment media : Alkaline Peptone Water



3.Selective media: Mac Conkey's medium



– 4. Differential media : Blood agar





Transport media : Stuart's medium

