Lab 2 MEDIA Practical Microbiology

**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 98oC & solidifies at 42oC .
* 2% agar is employed in solid medium

2.Gelatin :

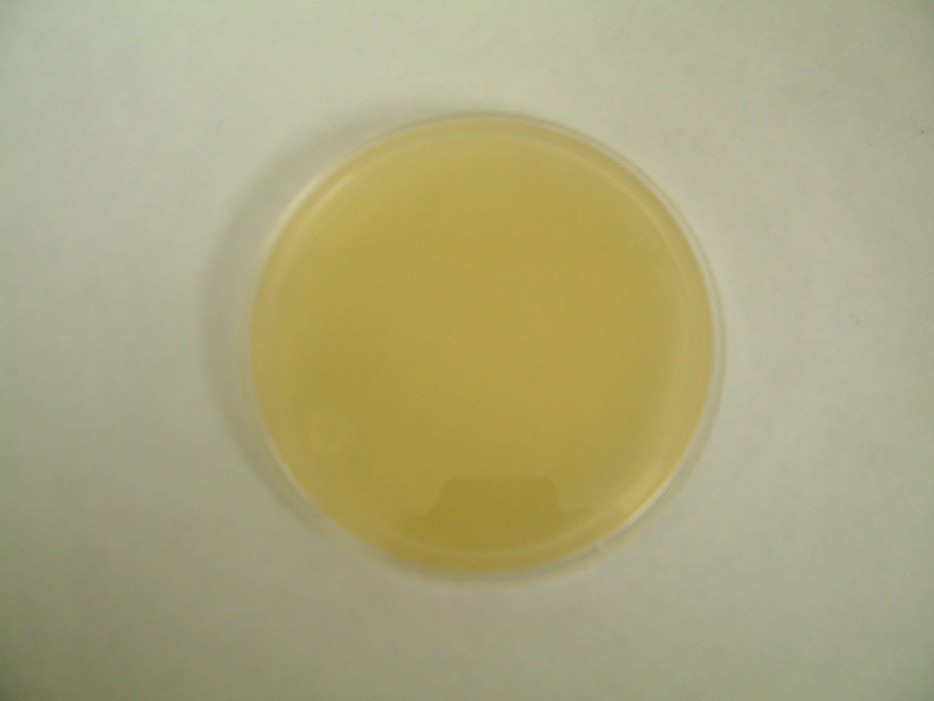
* Not satisfactory .
* Liquefies at 24oC .
* Has nutritive value .
* Affected by the growth of the bacteria.

**Types of Media**

**l.Based on Their consistency:**

**1.Solid media** – contains 2% agar

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



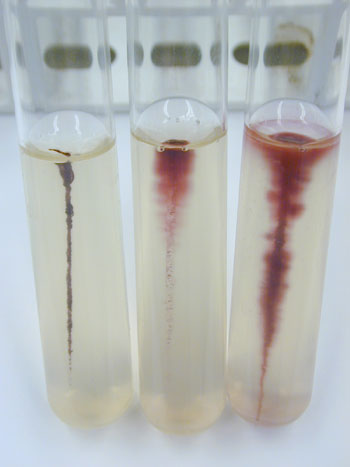
**2.Liquid media** – no agar.

* 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



**ll. Based on the constituents/ ingredients**

a) simple medium

b) complex medium

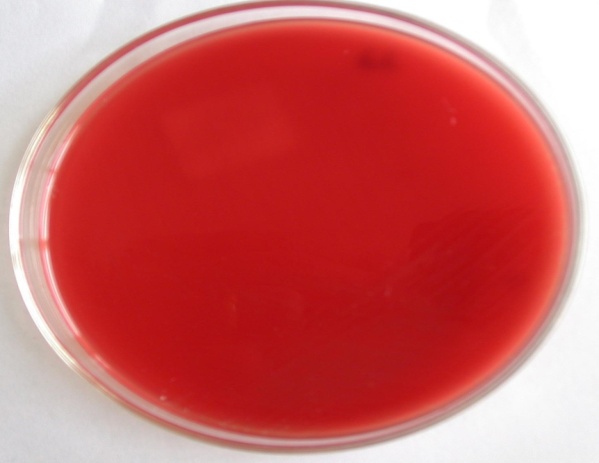
c) synthetic or defined medium

d) Special media

**Special media:**

**1.Enriched media** :

Eg: Blood agar, Chocolate agar



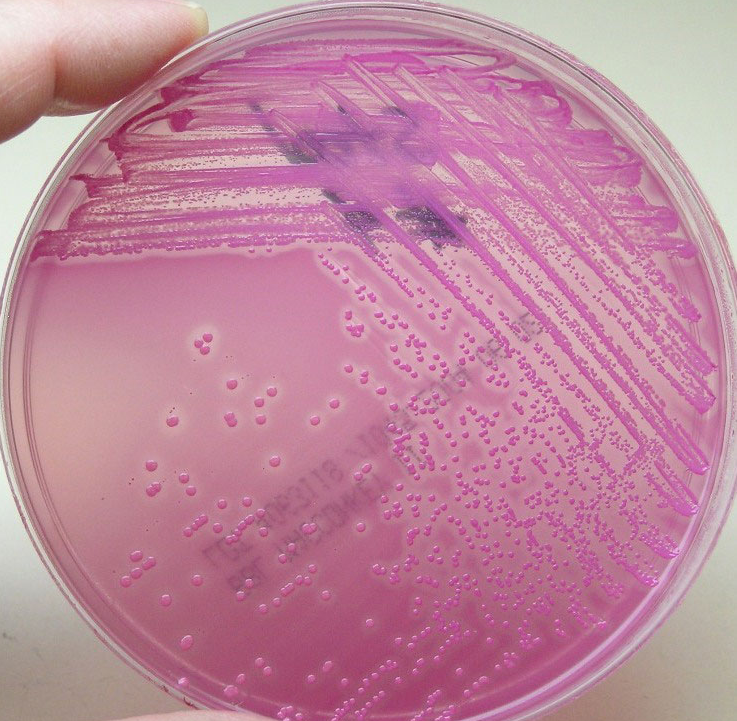
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**2.Enrichment media :** Alkaline Peptone Water

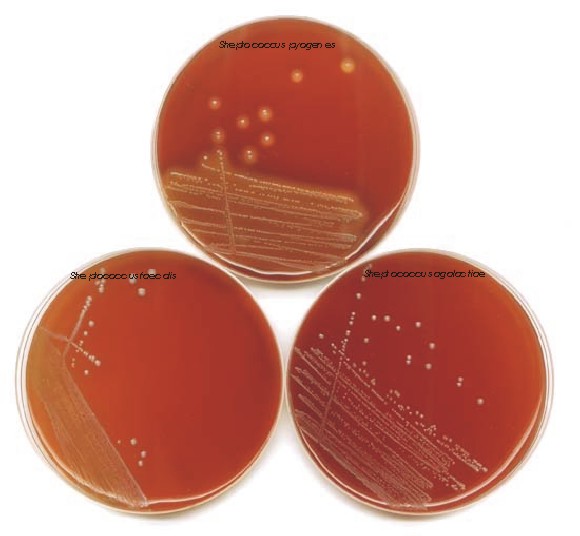
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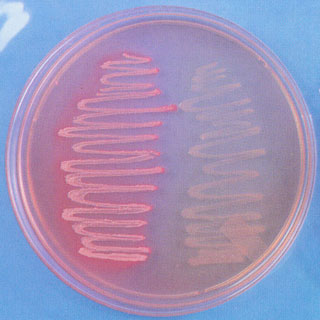
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**3.Selective media:** Mac Conkey’s medium



* + Indicator media
  + **4.Differential media : Blood agar**

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Transport media : Stuart’s medium