

**SOYABEAN CASEIN DIGEST AGAR W/ YEAST EXTRACT AND HEMIN  
(TRYPTONE SOYA AGAR W/ YEAST EXTRACT AND HEMIN)****TM 860**

For cultivation of fastidious microorganisms like *Bordetella pertussis* and *Neisseria meningitidis*

**Composition**

Ingredients	Gms/Ltr.
Tomato juice (400 ml)	17.00
Agar	13.00
Sodium chloride	5.00
Yeast extract	5.00
Soya peptone	3.00
Dipotassium phosphate	2.50
Hemin	0.020

\* Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight.

**Instructions for use**

Dissolve 45.52gms in 1000ml distilled water. Gently heat to boiling with gentle swirling and dissolve the medium is completely. Sterilize by autoclaving at 15 psi (at 121°C) for 15 minutes. Cool to 45-50°C and pour into sterile petri plates.

**Appearance:** Light yellow to medium amber colour, slightly opalescent gel

**pH (at 25°C):** 7.3 ± 0.2

**Principle**

**SOYA CASEIN DIGEST AGAR W/ YEAST EXTRACT AND HEMIN (TRYPTONE SOYA AGAR W/ YEAST EXTRACT AND HEMIN)** for cultivation of fastidious microorganisms like *Bordetella pertussis* and *Neisseria meningitides*. It is a good medium for isolation of aerobes and anaerobes. Previously, Soya Casein Digest Medium has prepared later it was modified with the addition of Tomato juice, Yeast extract and Hemin to make Soya Casein Digest Agar with Yeast extract and Hemin. This medium consists of Soya peptone, Tomato juice and Yeast extract as the sources of carbon, nitrogen, vitamins, amino acids and other necessary minerals. Sodium chloride is added for the osmotic balance of the media. Dipotassium phosphates provide the buffering agent to the medium. Hemin supports the growth of fastidious microorganisms such as *Bordetella pertussis* and *Neisseria meningitides*. Agar is a solidifying agent.

**Interpretation**

Cultural characteristics observed after inoculation ( $10^3$ CFU/ml), on incubation at  $35 \pm 2^\circ\text{C}$  for 18 - 24 hours.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth
<i>Neisseria meningitidis</i>	13090	$10^3$	Good
<i>Streptococcus pneumoniae</i>	6303	$10^3$	Good
<i>Enterococcus faecalis</i>	29212	$10^3$	Good

**References**

1. The United States Pharmacopoeia / National Formulary, USP31, The United States Pharmacopeial Convention Inc., Rockville, MD. (2008).
2. Quinto G. and Sebald M., Am. J. Med. Technol. 30:381-384. (1964).
3. Mac Faddin, Jean. F., Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria. Vol. 1. Baltimore, MD.: Williams & Wilkins. (1985).