

**Tryptic Soy Agar with Lecithin and Tween 80**
**Catalog : HB8520-4-500**

*Tryptic Soy Agar with Lecithin and Tween 80 is used for sterility testing of environment, utensils, equipment and surfaces.*

**Approximate Formula:**

Ingredients	gm/liter
Pancreatic digest of casein	15.0
Papaic digest of soybean meal	5.0
Sodium Chloride	5.0
Lecithin	1.0
Tween 80	7.0
Agar	15.0
Final pH7.3±0.2 at 25°C	

\*Adjusted and/or supplemented as required to meet performance criteria.

**Directions:**

Suspend 48.0g of the medium in one liter of deionized or distilled water. Mix well and heat with frequent agitation to completely dissolve the powder. Dispense into tubes or flasks. Sterilize in the autoclave at 121°C (15 lbs.) for 15 minutes.

**Principle and Interpretation:**

The combination of Pancreatic digest of casein and Papaic digest of soybean meal in TSA renders the medium highly nutritious by supplying organic nitrogen, particularly amino acids and longer-chained peptides. Lecithin and Tween 80 are neutralizers inactivates the bactericidal and bacteriostatic effects of chlorine and quaternary ammonium detergents. However, these neutralizers exhibits no toxic effects on microorganisms. Sodium chloride maintains osmotic equilibrium. Agar is the solidifying agent.

**Appearance:**

Dehydrated medium is a free-flowing yellowish powder. The prepared medium is a kind of yellowish transparent gel.

**Precautions:**

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

**Storage conditions and Shelf life:**

Tryptic Soy Agar with Lecithin and Tween 80 must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 3 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

**Quality control:**

Prepare the culture medium as per label directions. Inoculate and incubate at 30-35°C for 18-24 hours.

Microorganism	Strains Number	Inoculum (CFU)	Growth	Remarks
Escherichia coli	ATCC 25922	20-100	luxuriant	Colorless large colonies
Staphylococcus aureus	ATCC 6538	20-200	luxuriant	Yellow colonies
Enterococcus faecalis	ATCC 29212	20-200	luxuriant	White small colonies
Bacillus subtilis	ATCC 6633	20-200	luxuriant	White irregular colonies
Pseudomonas aeruginosa	ATCC 9027	20-200	luxuriant	Green pigment
Candida albicans	ATCC 10231	20-200	luxuriant	White colonies (25°C, 48-72h)
Aspergillus niger	ATCC 16404	20-200	luxuriant	Black spore (25°C, 48-72h)

**Reference:**

- GB4789.28-2013 People's Republic of China food safety national standard food microbiology test medium and reagent quality requirements.
- United States Pharmacopeial Convention, Inc. 2008. The United States pharmacopeia 31/The national formulary 26, Supp. 1, 8-1-08, online. United States Pharmacopeial Convention, Inc., Rockville, Md.
- European Directorate for the Quality of Medicines and Healthcare. 2008. The European pharmacopoeia, 6th ed., Supp. 1, 4-1-2008, online. European Directorate for the Quality of Medicines and Healthcare, Council of Europe, 226 Avenue de Colmar BP907-, F-67029 Strasbourg Cedex 1, France.