

22091 Tryptic Soy Agar (Tryptone Soya Agar, TSA, CASO Agar, Soybean Casein digest Agar)

Tryptic Soy Agar is a general purpose culture medium for cultivation, isolation of fastidious or nonfastidious microorganisms or for maintenance of stock culture. Used for the precultivation and enumeration (*E. coli*) acc. to membrane-filter technique. It is suitable for the cultivation both of aerobes and anaerobes. As it does not contain the X and V factors, it is suitable for identification of *Haemophilus sp.* by adding X (Hemin) and V (DPN) factors strips.

Composition:

Ingredients	Grams/Litre
Casein peptone (pancreatic)	15.0
Soya peptone (papainic)	5.0
Sodium chloride	5.0
Agar	15.0
Final pH 7.3 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Directions:

Suspend 40 g of dehydrated media in 1 litre of purified filtered water. Sterilize at 121°C for 15 minutes. Cool to 45- 50°C. Mix gently and dispense into sterile Petri dishes or sterile culture tubes.

Principle and Interpretation:

Casein peptone and Soya peptone provide nitrogen, vitamins and minerals. The natural sugars from Soya peptone promote bacterial growth. Sodium chloride is for the osmotic balance. The medium may also be used as a blood agar base. Add 7% of sterile blood to the sterile molten medium which has been cooled to approximately 45°C. Tryptone Soya Agar can also be used for the preparation of chocolate agar. Because Tryptone Soya Agar contains no added carbohydrate it may be used, with added blood, in the determination of haemolysis. When supplemented with 0.7g lecithin (61755) and 5g Polysorbate (Tween 80; 93780) per litre of Tryptone Soya Agar, the medium can be used as Microbial Content Test Agar for testing quaternary ammonium compounds. Tryptone Soya Agar is recommended as a reference medium when testing selective media, to measure the degree of inhibition. A medium for isolation of *Bacteroides gracilis* is prepared from Tryptone Soya Agar by adding formate (e.g. Sodium formate; 71540), fumarate (e.g. Sodium fumarate; 47970), and nitrate (e.g. Sodium nitrate; 71757). The medium is made selective using nalidixic acid (70162) and teicoplanin.

Cultural characteristics after 18-48 hours at 35°C (if necessary 76 hours).

Organisms (ATCC)	Growth
<i>Escherichia coli</i> (25922)	+++
<i>Staphylococcus aureus</i> (25923)	+++
<i>Streptococcus pneumoniae</i> (6305)	+++
<i>Streptococcus pyogenes</i> (19615)	+++



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