

CHAPMAN STONE MEDIUM

Selective and differential medium for the isolation of staphylococci in foods

TYPICAL FORMULA (g/l)

Tryptone.....	10.0
Yeast Extract.....	2.5
Gelatin.....	30.0
D-Mannitol.....	10.0
Sodium Chloride.....	55.0
Ammonium Sulfate.....	75.0
Dipotassium Phosphate.....	5.0
Agar.....	15.0
Final pH 7.0 ± 0.2	

DESCRIPTION

CHAPMAN STONE MEDIUM is a selective and differential medium for the isolation of staphylococci in foods.

PREPARATION

Suspend 202.5 g of powder in 1000 ml of distilled or deionized water. Heat and gently agitate until completely dissolved. Sterilize in autoclave at 121°C for 15 minutes. Cool to 45-50°C, mix well and dispense in petri dishes.

PRINCIPLE

Tryptone and yeast extract provide nitrogen, vitamins, minerals and amino acids essential for growth. D-Mannitol is the fermentable carbohydrate providing carbon and energy. Gelatin and ammonium sulfate serve to determine gelatinase activity. Sodium chloride act as selective agent because most bacteria species, except staphylococci, are inhibited by high salt content. Bacteriological agar is the solidifying agent.

TECHNIQUE

Streak a sample of the specimen onto the surface of the agar. Make several stabs into the medium along the streak. Incubate aerobically at 30 ± 2°C for up to 48 hours.

INTERPRETATION OF RESULTS

Examine for growth and the presence or absence of clear zone around colonies. To determine mannitol fermentation add a few drops of Bromcresol purple to areas of the medium from which colonies have been removed. The staphylococcal colonies ferment mannitol and are coagulase- and gelatinase-positive, therefore when colony site change color to yellow after application of Bromcresol purple (positive mannitol fermentation) and the colony is surrounded by a clear zone (positive gelatinase activity) it is probably pathogenic *Staphylococcus*. Further confirmation can be performed with additional tests, such as coagulase activity.

STORAGE

10-30°C away from light, until the expiry date on the label or until signs of deterioration or contamination are evident.

WARNING AND PRECAUTIONS

The product is not classified as hazardous by current legislation and does not contain harmful substances in concentrations of ≥1%.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

REFERENCES

1. Chapman. 1948. Food Res. 13:100.
2. Chapman. 1946. J. Bacteriol. 51:409.
3. MacFaddin. 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria. Williams & Wilkins, Baltimore, Md.



LIOFILCHEM® S.r.l.

Via Scozia, Zona Ind.le - 64026, Roseto degli Abruzzi (TE) - ITALY
Tel +39 0858930745 Fax +39 0858930330 Website: www.liofilchem.net E-mail: liofilchem@liofilchem.net

PRODUCT SPECIFICATION

NAME

CHAPMAN STONE MEDIUM

PRESENTATION

Dehydrated culture medium

STORAGE

10-30°C

PACKAGING

Code	Content	Packaging
610353	500 g	500 g of powder in plastic bottle
620353	100 g	100 g of powder in plastic bottle

pH OF THE MEDIUM

7.0 ± 0.2

USE

CHAPMAN STONE MEDIUM is a selective and differential medium for the isolation of staphylococci in foods

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Powder medium

Homogeneous, free-flowing, light beige in color

Prepared medium

Light to medium amber, opalescent with precipitate

SHELF LIFE









4 years

QUALITY CONTROL

- Control of general characteristics, label and print
- Sterility control
7 days at 25 ± 1°C, in aerobiosis
7 days at 36 ± 1°C, in aerobiosis
- Microbiological control
Inoculum for productivity: 10-100 UFC/ml
Inoculum for selectivity: 10⁴-10⁵ UFC/ml
Inoculum for specificity: ≤10⁴ UFC/ml
Incubation Conditions: 18-48 h at 30 ± 2°C, in aerobiosis

Microorganisms		Growth	Halo (Gelatinase)	Mannitol fermentation
<i>Escherichia coli</i>	ATCC 25922	Inhibited	-	-
<i>Streptococcus aureus</i>	ATCC 25923	Good	+	+
<i>Staphylococcus epidermidis</i>	ATCC 12228	Good	+	-

TABLE OF SYMBOLS

 LOT	Batch code	 Keep away from sunlight	 Manufacturer	 Use by
 REF	Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Consult instruction for use



LIOFILCHEM® S.r.l.

Via Scozia, Zona Ind.le - 64026, Roseto degli Abruzzi (TE) - ITALY

Tel +39 0858930745 Fax +39 0858930330 Website: www.liofilchem.net E-mail: liofilchem@lioilchem.net