TM 2398 – TRYPTONE YEAST EXTRACT CYSTINE W/ SUCROSE & W/O BACITRACIN AGAR BASE NEW (TYCSB AGAR BASE)

INTENDED USE

Recommended for selective isolation of *Streptococcus mutans*.

PRODUCT SUMMARY AND EXPLANATION

TYCSB Agar is devised by Gold et al. as a selective medium for *Streptococcus mutans* with bacitracin and sucrose. *Streptococcus mutans* is facultatively anaerobic, Gram-positive coccus-shaped bacterium commonly found in the human oral cavity. It is the primary causative agent of dental cavities. Conditions in the oral cavity are diverse and complex, frequently changing from one extreme to another. Thus, to survive in the oral cavity, *S.mutans* must tolerate rapidly harsh environmental fluctuations and exposure to various antimicrobial agents to survive.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	15.000
Yeast extract	5.000
Disodium hydrogen phosphate.7H2O	1.000
Sodium bicarbonate	2.000
Sodium acetate.3H2O	20.000
Sucrose	200.00
L-Cystine	0.200
Sodium sulfite	0.100
Sodium chloride	0.100
Agar	15.000

PRINCIPLE

Tryptone and yeast extract in the medium provide nutrients essential for the growth of Streptococci. Sodium sulphite, sodium acetate, disodium phosphate, and sodium bicarbonate are sources of ions that simulate metabolism.

INSTRUCTION FOR USE

- Suspend 249.99 grams (equivalent weight of dehydrated medium per litre) in 1000 ml purified / distilled water.
- Heat to boiling to dissolve to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes and cool to 45-50°C.
- Aseptically add sterile rehydrated contents of 1 vial of TYCSB supplement.
- Mix well and pour into sterile petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Light yellow coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.3±0.2

INTERPRETATION

Cultural characteristics observed after incubation with TYCSB supplement.

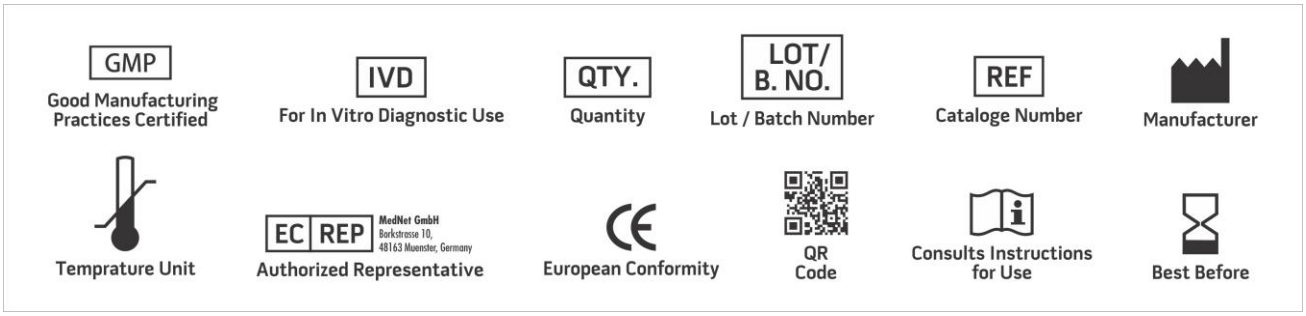
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Streptococcus mutans	25175	50-100	Good-luxuriant	>=50%	35-37°C	24-48 Hours

PACKAGING:
In pack size of 500 gm bottles.

STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES
1. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
2. Gold OG,Jordon H V,Van Houte J 1973 A Selective medium for Streptococcus mutans. Arhives of Oral Biology 18:1357-1364.
3. Biswas, S; Biswas, I (2011). "Role of VltAB, an ABC transporter complex, in viologen tolerance in Streptococcus mutans". Antimicrobial agents and chemotherapy 55.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**
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