ARENA
BioScien

Block 5, Street 9 inside The Ismailia
free zone. Ismailia- Egypt
Post Code-41511
Tel.-Fax: +202 21813500/ +202 21813600
Mob.: +2 01211550941/ +2 01119225860
E-mail: sales@arenabioscientific.com
Website: www.arenabioscien.com

SF Broth

SF (Streptococcus Faecalis) Broth is used for the differentiation of Enterococcus species from the Streptococcus bovis group and other streptococci.

REF: BS.1/FSP01.010.0010 10 Tubes

CLINICAL SIGNIFICANCE

The formulation of SF Medium was developed by Hajna and Perry1 as a result of their comparative study of presumptive and confirmatory media for the detection of coliforms and fecal streptococci. It was recommended for use in the examination of waters and other materials for the presence of fecal streptococci as an indicator of pollution. The use of SF Medium in sanitary bacteriology has been replaced by more selective media recommended in current compendia of methods for the examination of waters and foods.2-4 For diagnostic microbiology purposes, the medium is useful in differentiation of enterococci from streptococci. Pure cultures of streptococci are inoculated into SF Medium in order to determine if the respective culture is Enterococcus sp. Enterococci ferment dextrose and grow in the presence of the inhibitor sodium azide.

METHOD PRINCIPLE

Peptone and dextrose supply the nutrients required for the growth of enterococci. Sodium chloride maintains the osmotic balance of the medium. Sodium azide exhibits a bacteriostatic effect on gram-negative bacteria through its inhibitory action on enzymes in the electron transport system. Bromcresol purple serves as a pH indicator.

MEDIA COMPOSITION

Item	Formula per liter of medium
Tryptone	20 gm
Dextrose	5 gm
Dipotassium phosphate	4 gm
Monopotassium phosphate	1.5 gm
Sodium chloride	5 gm
Sodium azide	0.5 gm
Bromocresol purple	0.032 gm

pH after sterilization 6.9 ± 0.2

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.

S56: dispose of this material and its container at hazardous or special waste collection point.
S57: use appropriate container to avoid environmentalcontamination.
S61: avoid release in environment.

For further information, refer to the SF Broth material safety data sheet.

STORAGE AND STABILITY

BioScien SF Broth Tubes should be stored on receipt store between 20-30°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

Directions

Inoculate tubes of the medium with pure cultures of the test organisms. Incubate tubes for 18-48 hours at 45-46°C in an aerobic atmosphere.

Deterioration

The color of ***BioScien*** SF broth tubes is clear purple without any precipitate in sterile tubes. If there are any physical changes or signs of deterioration (shrinking, cracking, or discoloration), and contaminations for hydrated media, discard the medium.

SPECIMEN

Pure isolates

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile Loop
- Incubator

PERFORMANCE CHARACTERISTICS

Cultural characteristics observed after 18s-48 hours at 45-46 °C.

Microorganism	Growth	Reaction
Enterococcus faecalis ATCC19433	Good	Yellow
Enterococcus faecium ATCC27270	Good	Yellow
Escherichia coli ATCC25922	Inhibited	No change
Streptococcus bovis ATCC33317	None to poor	No change

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control still out of range please contact ***BioScien*** technical support.

REFERENCES

1. Hajna and Perry. 1943. Am J. Public Health. 33:550.
2. Marshall (ed.). 1993. Standard methods for the examination of dairy products, 16th ed. American Public Health Association, Washington, D.C.
3. Clesceri, Greenberg and Eaton (ed.). 1998. Standard methods for the examination of water and wastewater, 20th ed. American Public Health Association, Washington, D.C.
4. Downes and Ito (ed.). 2001. Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.

SYMBOLS IN PRODUCT LABELLING			
IVD	For in-vitro diagnostic use	Σ	Number of <n> test in the pack
LOT	Batch Code/Lot number	⚠	Caution Do not use if package is damaged
REF	Catalogue Number		
🌡	Temperature Limitation	ℹ	Consult Instruction for use
⌛	Expiration Date		
🏭	Manufactured by		