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

Azide Blood Agar Base

Is used for the selective isolation and cultivation of Streptococcus and Staphylococcus species from mixed bacterial flora in clinical and non-clinical samples.

REF: BS.1/AZ01.100.0100	100 Gram	REF: BS.1/AZ01.250.0250	250 Gram
REF: BS.1/ AZ01.500.0500	500 Gram		

CLINICAL SIGNIFICANCE

Azide Blood Agar Base is recommended for the isolation and cultivation of Streptococcus species from clinical and nonclinical specimens. It is a modification of the broth medium originally formulated by Edwards for the detection of Streptococci from bovine mastitis cases (1). The original broth medium of Edwards was modified to a blood agar by Packer containing sodium azide and crystal violet (2).

METHOD PRINCIPLE

Peptone special and HM Peptone B are the sources of carbon, nitrogen and essential growth factors. Sodium azide acts as a selective agent by suppressing the growth of gram-negative bacteria. It also prevents the swarming of Proteus (3, 4). Sodium chloride helps to maintain the osmotic balance of the medium. The media can be supplemented with sterile defibrinated blood to prepare blood agar. Blood serves as an additional source of growth factors and it also helps to visualize the haemolytic pattern. The pH of the medium influences the inhibitory action of sodium azide (2). At pH 7.2, sodium azide does not interfere with the haemolytic reactions of *Streptococci* ; however, haemolytic pattern of *Streptococci* is different on Azide Blood Agar as compared on nonselective blood agar. For best results, use light inoculum and incubate anaerobically for enhancement in haemolytic reaction. Different types of haemolysis can be visualized on blood agar plates (5).

MEDIA COMPOSITION

Item	Formula per liter of medium
- Peptone, special	10.00 gm.
- Beef extract	3.000 gm.
- Sodium chloride	5.000 gm.
- Sodium azide	0.200 gm.
- Agar	15.00 gm.

Final pH 7.2 ± 0.2 at 25°C

PRECAUTIONS AND WARNINGS

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

Good Laboratories practices using appropriate precautions shouldbe 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 plentyof soap and water. In case of severe injuries; seek medical adviceimmediately.
- 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 environmental contamination.
S61: avoid release in environment.

For further information, refer to the Azide Blood Agar Base Material safety datasheet.

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile plates
- Incubator
- Autoclave

STORAGE AND STABILITY

BioScien Azide Blood Agar base should be stored between 10-30°C in a firmlyclosed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a dry ventilated area protected from extremes of temperature andsources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

PREPARATION

1. Suspend 33.2 grams in 1000 ml of distilled water.
2. Heat to boiling to dissolve the medium completely.
3. Sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 minutes.
4. Cool to 45-50°C. For preparing Blood Agar plates, 5% v/v sterile defibrinated blood is added aseptically.
5. Mix well and pour into sterile Petri plates.

Deterioration

The color of ***BioScien*** Azide Blood Agar Base is Cream to yellow homogeneous free flowing powder. Prepared Basal Medium is Yellow coloured, clear to slightly opalescent gel. After addition of 5%w/v sterile defibrinated blood is Cherry red coloured, opaque gel forms in Petri plates, which darkens on standing. If there are any physical changes for powder or signs of deterioration (shrinking, cracking, or discoloration), and contaminations for hydrated media, discard the medium.

SPECIMEN

Clinical samples – Blood

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. If control still out of range please contact ***BioScien*** technical support.

PERFORMANCE CHARACTERISTICS

Cultural characteristics observed with added 5%w/v sterile defibrinated blood, after an incubation at 35-37°C for 18-24 hours.

Oranism	Growth	Haemolysis
Enterococcus faecalis ATCC 29212	luxuriant	alpha/gamma
Escherichia coli ATCC 25922	None -poor	none
Staphylococcus epidermidis ATCC 12228	luxuriant	none
Streptococcus pyogenes ATCC 19615	good-luxuriant	Beta
Streptococcus pneumoniae ATCC 6303	Good	Alpha

SYMBOLS IN PRODUCT LABELLING

IVD	For in-vitro diagnostic use		Number of <n> test in the pack
LOT	Batch Code/Lot number		Caution
REF	Catalogue Number		Do not use if package is damaged
	Temperature Limitation		Consult Instruction for use
	Expiration Date		
	Manufactured by		

REFERENCES

1-Edwards, 1933, J. Comp. Pathol. Therap., 46:211.

2.Packer, 1943, J. Bacteriol., 1943, 46:343

3. Lichstein and Snyder, 1941, J. Bacteriol., 42:653.

4. Snyder and Lichstein, 1940, J. Infect. Dis., 67:113.

5. Isenberg, (Ed.), 1992, Clinical Microbiology Procedures Handbook, Vol. I., American Society for Microbiology, Washington, D.C.

6. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.