# AZIDE BLOOD AGAR

**Ready to use plates**
**for the isolation of streptococci and staphylococci**

**Typical formula**

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|---|---|
| Tryptose | 10.0 |
| Beef Extract | 3.0 |
| Sodium Chloride | 5.0 |
| Sodium Azide | 0.2 |
| Agar | 15.0 |
| Defibrinated sheep blood | 50 ml |

Final pH 7.2 ± 0.2

**Description and technique**

Azide Blood Agar Base is recommended for the selective isolation of streptococci and staphylococci from faeces, water, foodstuffs and other specimens grossly contaminated with Gram-negative flora. The review by Hartman et al. lists more than forty types of selective media for streptococci with sodium azide base; this substance has a bacteriostatic effect on a number of bacterial species, particularly Gram-negative ones (probably by blocking the metalloporphyrinic enzymatic systems: catalase, cytochrome C oxidase). It inhibits the swarming of *Proteus* spp., which does not interfere with the phenomenon of haemolysis, and allows the development of some Gram-positive species, particularly streptococci, staphylococci and some anaerobes. The material under examination can be plated onto the surface, or included into the agar mass. The latter method is preferable: it is noticed that streptolysin O is inactivated by oxygen and that some strains of streptococci grow better when oxygen presence is reduced. Several authors recommend anaerobic incubation, or the preparation of a double set of plates, one for anaerobic and the other for aerobic incubation. The typical appearance of haemolysis in Azide Blood Agar plates is as follows:
α-haemolysis: greenish-brown ring, sometimes surrounded by a light zone; under the microscope the red cells appear discoloured but intact.
β-haemolysis: transparent red ring
The diagnosis of streptococci is confirmed with standard microscopic, biochemical and serological examination.

**Storage**

Store at 2-8° - When stored as directed the plates remain stable until the expiry date shown on the label. Do not use beyond stated expiry date.

**References**

• Hartman. P.A. Beinbold, G.W. & Saraswat D.S. (1966) - Adv. Appl. Micr. **8**, 253-289.
• Moody, M.D. (1972) - Old and new techniques for rapid identification of group A streptococci. In: "Streptococci and streptococcal diseases", ed. Wannamaker, S.W. & Matsen J.M., London & New York Academic Press.

**Packaging**

**541100 Azide Blood Agar, 20 ready to use plates**