# B1676 Blood Agar Base No. 2

Blood Agar Base No. 2 is especially devised to permit the maximum recovery of fastidious pathogenic microorganisms without interfering with their haemolytic reactions.

**Composition:**

| Ingredients | Grams/Litre |
|---|---|
| Proteose Peptone | 15.0 |
| Liver Extract | 2.5 |
| Yeast Extract | 5.0 |
| Sodium Chloride | 5.0 |
| Agar | 15.0 |
| Final pH 7.4 +/- 0.2 at 25°C | |

Store prepared media below 8°C, protected from direct light. Store dehydrated powder in a dry place in tightly-sealed containers at 2-25°C.

Appearance: Yellow colored, homogeneous, free flowing powder.
Gelling: Firm.
Color and Clarity: Basal medium yields yellow colored, clear to slightly opalescent gel. With the addition of 7% (v/v) sterile defibrinated blood, a cherry red colored opaque gel forms in petri plates.

**Directions:**
Suspend 21.25 g of Blood Agar Base No. 2 in 500 ml distilled water. Boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 minutes. Cool to 40-50°C and aseptically add 7% v/v sterile defibrinated blood.

**Principle and Interpretation:**
This medium can be used to prepare a selective medium for *Brucella* species or *Campylobacter* species by adding antibiotic supplement selective for respective bacteria (1,2). *Brucella* cultures are highly infective and must be handled with care. Incubate preferably in 5-10% carbon dioxide atmosphere. This medium can also be used for primary isolation of *Haemophilus* species, where horse blood is used to enrich the medium. Better results are obtained by spreading half of the horse blood agar plate with 2 drops of 10% saponin (3). With added liver extract and yeast extract the medium shows enhanced growth and haemolytic reactions of fastidious organisms like Streptococci and Pneumococci. Chromogenic bacteria grown on this medium show enhanced pigment formation.
The nutritive components of the agar include proteose peptone, liver extract and yeast extract, which supply amino acids and other essential growth factors needed by bacteria. essential growth nutrients. Bile salts inhibit gram-positive bacteria especially bacilli and faecal Streptococci. Sodium Chloride maintains the osmotic balance of the medium.

Cultural characteristics after 48 hours at 35-37°C.

| Organisms (ATCC) | Growth | Haemolysis |
|---|---|---|
| *Neisseria meningitidis* (13090) | +++ | None |
| *Staphylococcus aureus* (25923) | +++ | beta |
| *Streptococcus pneumoniae* (6303) | +++ | alpha |
| *Staphylococcus pyrogenes* (19615) | +++ | beta |

References:

1. Hunter, D. and Kearns M., (1977). Brit. Vet. J., 133,486.
2. Skirrow, M.B., (1977). B.M.J. ii,9.
3. Waterworth, M. Pamela, Brit. J. Exp. Pathol., 36, 186 (1955)

**Precautions and Disclaimer**

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.