# Wilson Blair Agar Base

## Intended Use
Wilson Blair Agar Base is used for isolation and differentiation of *Salmonella* serotype *Typhi*.

## Summary
Wilson Blair Agar Base is a valuable medium for the isolation of *Typhi.* Salmonellae produce hydrogen sulfide that causes the colony to be surrounded by a metallic sheen. Wilson Blair Agar Base is highly selective for *Salmonella,* being inhibitory to coliforms, *Proteus* and *Shigella.*

## Principle
Peptone special and beef extract provide carbon, nitrogen and other growth factors. Dextrose is the source of energy whereas sodium chloride maintains the osmotic balance. Agar is used as a solidifying agent.

## Formula*

| **Ingredients** | **g/L** |
|---|---|
| Peptone, Special | 10.0 |
| Dextrose | 10.0 |
| Beef Extract | 5.0 |
| Sodium Chloride | 5.0 |
| Agar | 30.0 |
| Final pH (at 25°C) | 7.3 ± 0.2 |

*Adjusted to suit performance parameters

## Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

## Specimen Collection and Handling
Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

## Directions
1. Suspend 60.00 g of the powder in 1000 mL purified / distilled water.
2. Boil to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
4. To sterile melted base, add 4 mL of 1% Brilliant Green solution and 70 mL of selected reagent.

Solution 1: 40 g Sodium sulphite in 100 mL distilled water.
Solution 2: 21 g Dibasic sodium phosphate (Disodium hydrogen phosphate) in 100 mL distilled water.
Solution 3: 12.5 g Bismuth ammonium citrate in 100 mL distilled water.
Solution 4: 0.96 g Ferrous sulphate in 20 mL distilled water with 2 drops of Hydrochloric acid.

Prepare each solution separately and boil the combined solution until a slate grey colour develops. Mix well and pour into sterile petridishes.

## Quality Control
**Dehydrated Appearance:** Light yellow to yellow coloured, homogenous, free flowing powder.
**Prepared Appearance:** Light yellow coloured, slightly opalescent gel forms in petridishes.
With addition of selective reagent: Light yellow to Greyish green coloured.
**Cultural Response:** Cultural characteristics observed after an incubation of 24-48 hours at 30°C-35°C.

| Organism (ATCC) | Growth | Colour of Colony |
|---|---|---|
| *Proteus mirabilis* (25933) | Good | Green |
| *Salmonella enterica* subsp. *enterica* serovar *Typhi* (NTCC 786) | Good | Black with sheen |
| *Escherichia coli* (25922) | Inhibited | - |
| *Salmonella enterica* subsp. *enterica* serovar *Typhimurium* (14028) | Good | Black with sheen |

## Interpretation of Results

Refer to appropriate references and procedures for results.

## Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

## Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

## Reference


1. Mackie & McCartney's Practical Medical Microbiology. 14th edition.
2. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.


## Product Presentation:

| Cat. No. | Product Description | Pack Size |
|---|---|---|
| 201230010500 | Dehydrated Culture Media | 500 g |