

## Baird-Parker Agar Base - Instructions for Use

### *Intended Use*

BACGro™ Baird-Parker Agar Base, supplemented with Egg Yolk Tellurite Enrichment, is intended for the selective isolation and enumeration of *Staphylococcus aureus* from food products and other materials. Baird-Parker Agar Base is not intended for use in diagnosis, treatment, or prevention of disease in humans.

### *Product Summary*

The Baird-Parker Agar Base is used as a selective enumeration medium for *Staphylococcus aureus*. It is adopted by AOAC International as an Official Method of Analysis<sup>1</sup> for *S. aureus*.

The combination of peptone, yeast extract, and beef extract provide nitrogen, carbon, and trace vitamins and minerals to support the growth *S. aureus*. The inclusion of sodium pyruvate further supports the growth on *S. aureus* in the presence of selective agents. The egg yolk additive produces a halo around strains of *S. aureus* owing to the production of lecithinase, allowing for differentiation from other species of *Staphylococcus*. The inclusion of glycine and lithium chloride provide selectivity against other organisms, including Gram negative and other Gram positive bacteria. The addition of tellurite in the Egg Yolk Tellurite enrichment provides further specificity, and also results in a black color for *S. aureus* colonies.

### *Formulation\* (per Liter)*

Casein Peptone	10.0 g
Yeast Extract	1.0 g
Beef Extract	5.0 g
Sodium Pyruvate	10.0 g
Glycine	12.0 g
Lithium Chloride	5.0 g
Agar	20 g
Total	63 g/L

\*Formula may be supplemented and/or adjusted as required to meet performance criteria

## Directions

1. Add 63 g of Baird Parker Agar Base powder to 1 L of deionized water.
2. Heat and agitate. Bring to boil to completely dissolve
3. Autoclave at 121 degrees Celsius for 15 minutes.
4. Cool to 45-50°C.
5. Add 50mL Egg Yolk Tellurite Enrichment (30% egg yolk suspension containing potassium tellurite at 0.15%)
6. Mix well. Aseptically add to sterile Petri dishes.

## Precautions

This product is for laboratory use only and should only be used by qualified, trained laboratory personnel. Personnel should always use proper aseptic technique and observe all biohazardous precautions. All microbiological cultures should be presumed to be infectious.

Avoid ingestion, inhalation, or contact with skin and mucous membranes. If contact occurs, flush the area with clean water.

## Quality Control Specifications

Gold Standard Diagnostics tests each lot of manufactured BACGro™ culture media utilizing appropriate control organisms and specifications as documented on the Certificate of Analysis. End users should perform quality control testing in accordance with government regulatory requirements and accreditation guidelines. The following specifications are routinely used for testing:

Appearance (dehydrated): Light beige, homogenous, free flowing powder, free of debris

Appearance (prepared): Yellow, opalescent, with no precipitate or debris

pH (prepared): 6.8 – 7.2 at 25°C

Organism Performance:

Strain ID	Inoculum	Incubation			Result
		Time	Temp.	Environment	
<i>Staphylococcus aureus</i> (ATCC® 6538)	≤100 CFU	18 – 50 hr.	37° C	Aerobic	Growth, Black colonies, Clear halo
<i>Staphylococcus aureus</i> (ATCC® 25923)	≤100 CFU	18 – 50 hr.	37° C	Aerobic	Growth, Black colonies, Clear halo

<i>Staphylococcus epidermidis</i> (ATCC® 12228)	1,000 – 10,000 CFU	18 – 50 hr.	37° C	Aerobic	Growth, Black colonies, No halo
<i>Staphylococcus saprophyticus</i> (ATCC® 15305)	1,000 – 10,000 CFU	18 – 50 hr.	37° C	Aerobic	Growth, Black colonies, No halo
<i>Escherichia coli</i> (ATCC® 8739)	>10,000 CFU	18 – 50 hr.	37° C	Aerobic	No Growth
<i>Escherichia coli</i> (ATCC® 25922)	>10,000 CFU	18 – 50 hr.	37° C	Aerobic	No Growth

### ***Limitations of the Procedure***

This product is not labeled for use as a medical device, and is not intended to diagnose, treat, or prevent disease.

Due to variation in nutritional requirements, some strains may be encountered that grow poorly in this medium.

The formation of a halo around black colonies, or “egg yolk positive” colonies, does not guarantee a *S. aureus* identification. Use other microbiological, biochemical, and serological identification mechanisms to confirm.

### ***Storage and Expiration***

BACGro™ Baird-Parker Agar Base should be stored at 2 – 30 degrees Celsius. Because of the hygroscopic nature of dehydrated culture media, it should be stored in a dry place and the lid should remain tightly sealed. Media should be discarded if it is not free flowing or shows discoloration.

The expiration date printed on the label is applicable to media stored as directed.

### ***Catalog Numbers***

DCM2601 – Baird-Parker Agar Base, 500g

DCM2605 – Baird-Parker Agar Base, 5kg

DCM2610 – Baird-Parker Agar Base, 10kg

<sup>1</sup>Horwitz (ed.). 2000. Official methods of analysis of AOAC International. 17<sup>th</sup> ed., vol. 1. AOAC International, Gaithersburg, MD.