Northeast Laboratory Services

P.O. Box 788
Waterville, Maine 04903-0788
227 China Road
Winslow, Maine 04901

Administrative Offices
Phone: 207-873-7711
Fax: 207-873-7022

Customer Service
Phone: 1-800-244-8378
Fax: 207-873-7022

TECHNICAL PRODUCT INFORMATION

Baird-Parker Agar
Catalog No.: P1040 (Monoplate)
Catalog No.: P1040-USP (Monoplate)
Catalog No.: B1100 (100 mL Bottle)

INTENDED USE:
Baird-Parker Agar is recommended for the detection and enumeration of coagulase positive staphylococci from foods, clinical isolates and other specimens.

HISTORY/SUMMARY:
This medium is prepared according to the formulation of Baird-Parker. The medium permits the detection, enumeration and isolation of coagulase positive staphylococci from a variety of specimens such as food products, air, dust, soil, fecal specimens and from skin and mucous membranes after 24 hours incubation. Most other microorganisms are inhibited[2].

PRINCIPLES:
Baird Parker Agar Base contains casein peptone, beef extract and yeast extract as sources of Nitrogen, carbon, sulfur, vitamins and trace elements. Sodium pyruvate stimulates the growth of *S. aureus* without destroying the selectivity of the medium. The tellurite additive is toxic to egg yolk-clearing strains other than *S. aureus* and gives a black color to the colonies. The egg yolk additive is not only an enrichment, but also aids in the identification process by demonstrating lecithinase activity. Staphylococci that contain lecithinase break down the Egg Yolk and cause clear zones around the colonies. An opaque zone of precipitation may from due to lipase activity. Reduction of Potassium Tellurite, also a characteristic of coagulase positive staphylococci, causes blackening of the colonies. Glycine and lithium chloride provide inhibitory action against organisms other than *S. aureus*.

The complete medium is prepared by aseptically adding Egg Yolk Emulsion and 1% Tellurite Solution.

Coagulase positive staphylococci are distinguished by their formation of black, shiny, convex colonies surrounded by a clear zone. Coagulase negative staphylococci do not grow well, colonies are black and clear or opaque zones are rare. The majority of other organisms are inhibited, if growth occurs, the colonies are light to brown with no clear or opaque zones.

FORMULA:

Components (per liter of purified water)	Amount
Enzymatic Digest of Casein	10.0 g
Beef Extract	5.0 g
Yeast Extract	1.0 g
Lithium Chloride	5.0 g
Agar (15-20 g depending on gel strength)	17.0 g
Glycine	12.0 g
Sodium Pyruvate	10.0 g

Final pH 7.0 ± 0.2 @ 25°C

Aseptically Added:

Egg Yolk Emulsion 50%	**50 ml**
Potassium Tellurite 1%	**10 ml**

PRECAUTIONS:
This medium is for In Vitro Diagnostic Use. It supports the growth of pathogens and should be handled with caution by adequately trained personnel under the supervision of a microbiologist.

STORAGE:
This media should be stored at 2-8°C. Adequate storage prolongs the life and quality of the product. Do not use the media beyond its expiration date.

PROCEDURE:
Food samples should be macerated in suitable broth medium, diluted as desired and the diluted sample spread-inoculated onto the agar surface. Plates should be incubated for 24 hours at 35 ± 2°C. Consult references such as US Pharmacopeia or AOAC for detailed methods.

QUALITY CONTROL:
It is recommended that the user confirm the performance characteristics of this medium. Careful selection of test organisms must be made to obtain maximum information. Proper environmental conditions must be chosen to further ensure effective results.

PERFORMANCE CHARACTERISTICS:

Organisms	Results
ATCC 25933 *Proteus mirabilis*	Slight growth, black-brown colonies without zones of clearing.
ATCC 25923 *Staphylococcus aureus*	Black shiny colonies surrounded by zone clearing.
ATCC 12228 *Staphylococcus epidermidis*	Slight growth of black colonies without zones.
ATCC 29212 *Enterococcus faecalis*	Gray-black colonies, suppressed, no zone

REFERENCES:

1) Baird-Parker. J. App. Bact., 25:12, 1962
2) Baird-Parker. J. App. Bact., 25:441, 1962
3) Difco & BBL Manual, 2003 Pages 72-73
4) Acumedia 7112 Product Information Sheet revision 6, March 2012