# **Bacto™ Tryptose Phosphate Broth**

#### **Intended Use**

Bacto Tryptose Phosphate Broth is used for cultivating fastidious microorganisms.

### **Summary and Explanation**

Tryptose Phosphate Broth is an infusion-free buffered medium recommended for the cultivation of fastidious, pathogenic microorganisms. It can be used in a procedure for the serodiagnosis of Listeria monocytogenes. 1 It is valuable in tissue culture procedures,<sup>2</sup> where the peptone content is considered to be a stimulating factor for cells.

### **Principles of the Procedure**

Peptone provides carbon and nitrogen. Dextrose is a carbon source. Sodium chloride maintains osmotic balance. Buffering capacity is provided by disodium phosphate.

The addition of 0.1-0.2% agar to Tryptose Phosphate Broth facilitates anaerobic growth and aids in dispersion of reducing substances and CO<sub>2</sub> formed in the environment.<sup>3</sup> The low agar concentration provides suitable conditions for both aerobic growth in the upper zone and for microaerophilic and anaerobic growth in the lower zone.

#### **Formula**

### **Bacto™ Tryptose Phosphate Broth**

Approximate Formula* Per Liter	
Tryptose	g
Dextrose	g
Sodium Chloride	g
Disodium Phosphate	g
*Adjusted and/or supplemented as required to meet performance criteria.	_

### **Directions for Preparation from Dehydrated Product**

- 1. Dissolve 29.5 g of the powder in 1 L of purified water. (If a medium containing 0.1-0.2% agar is desired, add 1-2 g of agar; heat with frequent agitation and boil for 1 minute to completely dissolve the powder.)
- 2. Autoclave at 121°C for 15 minutes.
- 3. Test samples of the finished product for performance using stable, typical control cultures.

#### **Procedure**

See appropriate references for specific procedures.

#### **Expected Results**

Refer to appropriate references and procedures for results.

#### References

- 1. U.S. Food and Drug Administration. 2001. Bacteriological analytical manual, online. AOAC International, Gaithersburg, Md.
- Ginsberg, Gold and Jordan. 1955. Proc. Soc. Exp. Biol. Med. 89:66.
  MacFaddin. 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria, vol. 1. Williams & Wilkins, Baltimore, Md.

## **User Quality Control**

#### **Identity Specifications**

#### **Bacto™ Tryptose Phosphate Broth**

Dehydrated Appearance: Beige, free-flowing, homogeneous.

2.95% solution, soluble in purified water.

Solution is light amber, clear to very slightly opalescent, may have a very slight precipitate.

Prepared Appearance: Light amber, clear to very slightly opalescent,

may have a very slight precipitate.

Reaction of 2.95%

Solution at 25°C:  $pH 7.3 \pm 0.2$ 

#### Cultural Response

### **Bacto<sup>™</sup> Tryptose Phosphate Broth**

Prepare the medium per label directions. Inoculate and incubate at  $35 \pm 2$ °C for 18-48 hours.

ORGANISM	ATCC™	INOCULUM CFU	RECOVERY
Neisseria meningitidis	13090	10 <sup>2</sup> -10 <sup>3</sup>	Good
Staphylococcus epidermidis	12228	10 <sup>2</sup> -10 <sup>3</sup>	Good
Streptococcus pneumoniae	6305	10 <sup>2</sup> -10 <sup>3</sup>	Good
Streptococcus pyogenes	19615	10 <sup>2</sup> -10 <sup>3</sup>	Good



#### **Availability**

#### **Bacto™ Tryptose Phosphate Broth**

DAIN		
Cat. No.	260300	Dehydrated - 500 g
	260100	Dehydrated – 2 kg
	260200	Dehydrated – 10 kg

