Bacto™ Eugon Broth • Eugonbroth™ Medium

Intended Use

Eugon Broth (**Eugonbroth**™) is a general-purpose medium used for the cultivation of fastidious and nonfastidious bacteria from a variety of clinical and nonclinical specimens.

Summary and Explanation

Eugon Broth (**Eugonbroth**) is the fluid form of Eugon Agar, a clear medium developed for use in the enumeration of bacteria in milk and other products.[1] The formulation was developed from a study conducted by Vera of various peptones, carbohydrates, salts and other constituents in various concentrations and combinations to yield eugonic (luxuriant) growth of bacteria.[2]

Principles of the Procedure

Peptones supply amino acids and other nitrogenous substances to support bacterial growth. L-cystine is an essential amino acid that improves growth. Dextrose is incorporated as a source of energy and sodium chloride provides osmotic equilibrium. Sodium sulfite along with the cystine content improves growth with chromogenicity.

Formula

Bacto™ Eugon Broth

Approximate Formula* Per Liter		
Proteose Peptone No. 3	7.5	g
Pancreatic Digest of Casein	7.5	g
Soy Peptone	5.0	g
Dextrose	5.5	g
L-Cystine	0.7	g
Sodium Chloride	4.0	g
Sodium Sulfite	0.2	g

**Adjusted and/or supplemented as required to meet performance criteria.*

Directions for Preparation from Dehydrated Product

1. Suspend 30.4 g of the powder in 1 L of purified water. Mix thoroughly.
2. Heat with frequent agitation and boil for 1 minute to completely dissolve the powder.
3. Autoclave at 121°C for 15 minutes.
4. When an enriched medium is being prepared, cool to 50-55°C prior to adding the desired enrichment.
5. Test samples of the finished product for performance using stable, typical control cultures.

User Quality Control

Identity Specifications

Bacto™ Eugon Broth

Dehydrated Appearance:	Beige, free-flowing, homogeneous.
Solution:	3.04% solution, soluble in purified water upon boiling. Solution is light amber, clear, may contain up to a large amount of precipitate.
Prepared Appearance:	Light amber, clear, may have a slight precipitate.
Reaction of 3.04% Solution at 25°C:	pH 7.0 ± 0.2

Cultural Response

Bacto™ Eugon Broth

Prepare the medium (unsupplemented) per label directions. Inoculate and incubate with caps loosened at 35 ± 2°C (*Aspergillus brasiliensis* and *Candida albicans* at 30 ± 2°C) for up to 72 hours.

ORGANISM	ATCC™	INOCULUM CFU	RECOVERY
Aspergillus brasiliensis (niger)	16404	30-300	Fair to good
Candida albicans	26790	30-300	Good
Lactobacillus fermentum	9338	30-300	Good
Shigella flexneri	12022	30-300	Good
Streptococcus pyogenes	19615	30-300	Good

Procedure

Organisms to be cultivated must first be isolated in pure culture on an appropriate solid medium.

Using a sterile inoculating loop or needle, transfer fresh growth from the subculture medium to the tubed medium.

Incubate under conditions appropriate for the organism being cultivated. Broth cultures should be held at least 1 week before discarding as negative.

Expected Results

Growth in tubes is indicated by the presence of turbidity compared to an uninoculated control.

If growth appears, cultures should be examined by Gram staining, subculturing onto appropriate media and incubating inoculated media aerobically with increased CO_2 and/or anaerobically.

References

1. Pelczar and Vera. 1949. Milk Plant Monthly. *38*:30.
2. Vera. 1947. J. Bacteriol. *54*:14.

Availability

Bacto™ Eugon Broth

Cat. No. 259010 Dehydrated – 500 g

BBL™ Eugonbroth™ Medium

Cat. No. 297424 Prepared Tubes – Ctn. of 100*

**Store at 2-8°C.*