Columbia Blood Agar Base E

Intended Use
Columbia Blood Agar Base E is used as a highly nutritious, general-purpose medium for the isolation and cultivation of non-fastidious and fastidious microorganisms, with or without addition of blood, from a variety of clinical and non-clinical specimens.

Summary
Columbia Agar Base, without or with the addition of 5% (or 10%) sheep blood, is a highly nutritious, general-purpose medium for the isolation and cultivation of nonfastidious and fastidious microorganisms from a variety of clinical and nonclinical materials.

Principle
Starch serves as an energy source and also neutralizes toxic metabolites. Sheep blood permits the detection of haemolysis and also provides heme (X factor) which is required for the growth of many bacteria. However, it is devoid of V factor (Nicotinamide adenine dinucleotide) and hence *Haemophilus influenzae* which needs both the X and V factors, will not grow on this medium. As this medium have a relatively high carbohydrate content, beta-haemolytic Streptococci may exhibit a greenish haemolytic reaction which may be mistaken for the alpha haemolysis. Carry out confirmatory tests of all the colonies.

Formula*
Ingredients	**g/L**
Pantone	12.0 g
Bitone H Plus	6.0 g
Enzymatic Digest of Animal Tissue	3.0 g
Starch	1.0 g
Sodium Chloride	5.0 g
Agar	12.0 g
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.

Type of specimen
Food samples

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 39.00 g of the powder in 1000 mL purified / distilled water.
2. Heat this until boiling to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
4. For preparation of blood agar, Cool the base to 45°C 50°C and add 5% sterile defibrinated blood.

Quality Control

Dehydrated Appearance: Light yellow coloured, homogenous, free flowing powder

Prepared Appearance: Basal medium: Light amber coloured slightly opalescent gel. With addition of 5% defribinated blood: Cherry red coloured, opaque gel forms in petridishes.

Cultural Response: Cultural characteristics observed after an incubation of 24-48 hours at 35-37°C under anaerobic condition.

Organisms (ATCC)	Growth	Haemolysis
Staphylococcus aureus subsp. *aureus* (25923)	Good	Beta
Streptococcus pneumoniae (6305)	Good	Alpha
Streptococcus pyogenes Strain Bruno (19615)	Good	Beta
Neisseria gonorrhoeae (13090)	Good	None
Escherichia coli (25922)	Good	Beta

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. United States Pharmacopeial Convention, Inc. 2008. The United States pharmacopeia 31/The national formulary 26, Supp. 1, 8-1-08, online. United States Pharmacopeial Convention, Inc., Rockville, Md
2. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201031110500	Dehydrated Culture Media	500 g