

## Cooked Meat Medium (i23049)

Cooked Meat Medium and the enriched medium are used for the cultivation of anaerobes, especially pathogenic *clostridia*.

Industry: Clinical / Food / Water Samples

## Principles & Uses

Cooked Meat Broth, a versatile medium supporting the enrichment and maintenance of various bacteria, boasts a formulation that includes beef heart extract and peptone, providing essential nitrogen compounds, vitamins, and nutrients for bacterial growth. Dextrose serves as the carbon and energy source, while sodium chloride maintains osmotic equilibrium for bacterial cells. This medium is particularly effective for cultivating anaerobes, with its modified version, Chopped M-Medium, supporting the growth of spore-forming and non-spore-forming strict anaerobes.

Originally devised by Robertson, Cooked Meat Medium accommodates mixed bacterial cultures, preserving the viability of organisms over an extended period. It finds application in the cultivation and maintenance of *Clostridia*, and FDA recommends it for the enumeration and identification of *Clostridium perfringens* from foods. Turbidity or bubble formation indicates growth, and blackening of meat particles signals proteolysis. It is crucial to use the medium promptly or employ appropriate sterilization methods before inoculation, ensuring optimal results in cultivating and identifying anaerobic bacteria, especially *Clostridium*.

## Composition (gr/L)

Beef Heart (from 454 g) 98 g, Proteose Peptone 20 g, Dextrose 2 g, Sodium Chloride 5 g.

Final pH at 25°C 7.2 ± 0.2

## Preparation from dehydrated Powder

Suspend 12.5 g of the particles in 100 mL purified water (1.25 g/10 mL). Let stand until all particles are thoroughly wetted and form an even suspension.

Autoclave at 121°C for 15 minutes. Reduce pressure slowly and cool without agitation. If not used within 24 hours, reheat (100°C) prior to use to drive off absorbed oxygen.

## Quality Control

Dehydrated Appearance: Brown, homogeneous pellets.

Prepared Appearance: Medium amber, clear to very slightly opalescent supernatant fluid over insoluble pellets.

Reaction of 12.5% Solution at 25°C: pH 7.2 ± 0.2

## Cultural Response

Inoculate and incubate at 35 ± 2°C for 40-48 hours.

Organism (ATCC*)	Recovery
<i>Bacteroides vulgatus</i> (8482)	Good
<i>Clostridium novyi</i> (7659)	Good
<i>Clostridium perfringens</i> (12924)	Good
<i>Clostridium sporogenes</i> (11437)	Good
<i>Staphylococcus aureus</i> (25923)	Good

\*ATCC is a registered trade mark of the American Type Culture Collection.

## Storage

Keep the container at 15-30 °C. Store prepared medium at 2-8 °C.