CM 20315 – BRUCELLA AGAR BASE

INTENDED USE

For selective isolation and cultivation of Brucella or Campylobacter species.

PRODUCT SUMMARY AND EXPLANATION

Brucella are intracellular parasites that cause epizootic abortions in animals and septicemic febrile illness or localized infections of bone, tissue or organ systems in humans. Brucella species are highly fastidious and therefore require a nutrient rich medium to be able to grow. Also, Brucella species are highly infective and so extreme care should be taken while handling. Brucella Agar Base is used for the isolation and cultivation of Brucella species. The basal medium (with addition of Campylobacter Supplements) can be also used for the isolation of Campylobacter. Brucella Medium is a modified medium formulated to support luxuriant growth of fastidious bacteria like Brucella, streptococci, pneumococci, Listeria, Neisseria meningitides and Haemophilus influenzae. Brucella Agar is also recommended by APHA for isolation of Brucella species from foods.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	10.000
Peptone	10.000
Yeast extract	2.000
Dextrose (Glucose)	1.000
Sodium chloride	5.000
Sodium bisulphite	0.100
Agar	15.000

PRINCIPLE

Tryptone and peptone provide nitrogen and carbon source, long chain amino acids, vitamins and other essential nutrients Yeast extract serves as a source of vitamin B complex, and additionally it also supplies some nitrogenous nutrients. Sodium bisulphite is a reducing agent and sodium chloride helps to maintain the osmotic equilibrium of the medium. Dextrose serves as an energy source. The medium can also be enriched with 5 % v/v sterile defibrinated horse blood. For selective isolation of Brucella species antibiotic mixtures in the form of freeze dried supplements are incorporated into the base.

INSTRUCTION FOR USE

Dissolve 21.55 grams in 500 ml purified/distilled water.
Heat to boiling to dissolve the medium completely.
Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
Mix well and pour into sterile Petri plates. If required, for additional selectivity of Brucella species:

- Aseptically add sterile 5% v/v inactivated Horse Serum (inactivated by heating at 56°C for 30 minutes) and rehydrated contents of one vial of Brucella Selective Supplement.
- For Campylobacter: Add rehydrated contents of 1 vial of Campylobacter Supplement-I (Blaser-Wang) or Campylobacter Supplement-II (Butzler) or Campylobacter Supplement-III (Skirrow) and 5-7% defibrinated sheep blood to 500 ml sterile medium. For growth enhancement add rehydrated contents of 1 vial of Campylobacter Growth Supplement. Mix well before pouring into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Yellow coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 7.0±0.2

INTERPRETATION

Culturalcharacteristics observed after incubation in presence of 10% CO2 with added sterile 5% v/v inactivated horse serum and Brucella Selective Supplement.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Brucella melitensis	4309	50-100	Luxuriant	>=70%	35-37°C	24-72 Hours
Brucella suis	4314	50-100	Luxuriant	>=70%	35-37°C	24-72 Hours
Staphylococcus aureus subsp. aureus	25923	$>=10^4$	Inhibited	0%	35-37°C	24-72 Hours
Escherichia coli	25922	$>=10^4$	Inhibited	0%	35-37°C	24-72 Hours

PACKAGING:

Inpacksizeof100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

Afteruse,prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

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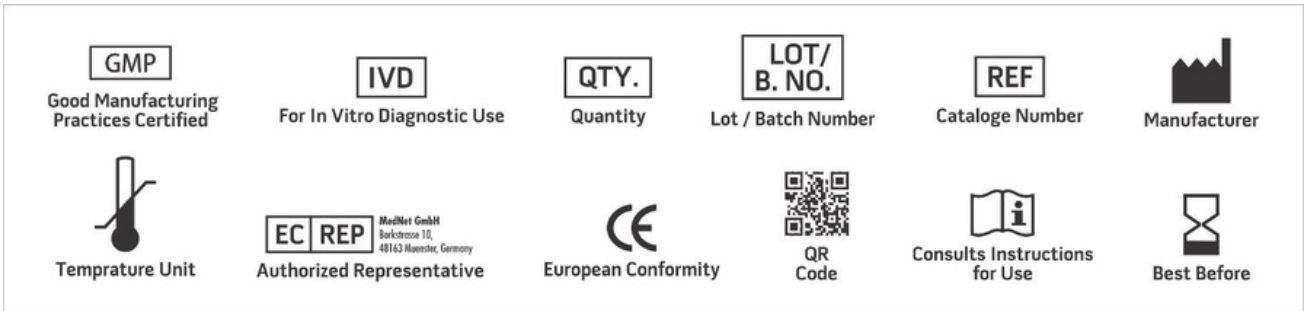

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*For LabUse Only