CM 20316 – BRUCELLA AGAR BASE (VEG.)

INTENDED USE

For selective isolation and cultivation of Brucella or Campylobacter species.

PRODUCT SUMMARY AND EXPLANATION

Brucella Veg Agar Base is prepared by completely replacing animal based peptones with vegetable peptones, making the medium BSE/TSE risks free. 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. Brucella Veg Agar Base is the modification of Brucella Agar Base and serves the same purpose. The basal medium can be also used for the isolation of Campylobacter (with addition of Camplylobacter Supplements) and other fastidious bacteria like Brucella, Streptococci, pneumococci, Listeria, Neisseria meningitides and Haemophilus influenza. Brucella Agar is also recommended by APHA for isolation of Brucella species from foods.
The medium can also be enriched with 5 % v/v sterile defibrinated horse blood. For selective isolation of Brucella species antibiotic mixtures are incorporated into the base. Swab specimens can be directly streaked on the plate. Liquid specimens can be inoculated by means of an inoculation loop. All presumptive anaerobic organisms must be further confirmed by additional tests.

COMPOSITION

Ingredients	Gms / Ltr
Veg hydrolysate	10.000
Veg peptone	10.000
Yeast extract	2.000
Dextrose	1.000
Sodium chloride	5.000
Sodium bisulphite	0.100
Agar	15.000

PRINCIPLE

Veghydrolysate and Veg peptone provide organic nitrogen. 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.

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 may have green tinge 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	Good-luxuriant	>=50%	35-37°C	24-72 Hours
Brucella suis	4314	50-100	Good-luxuriant	>=50%	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

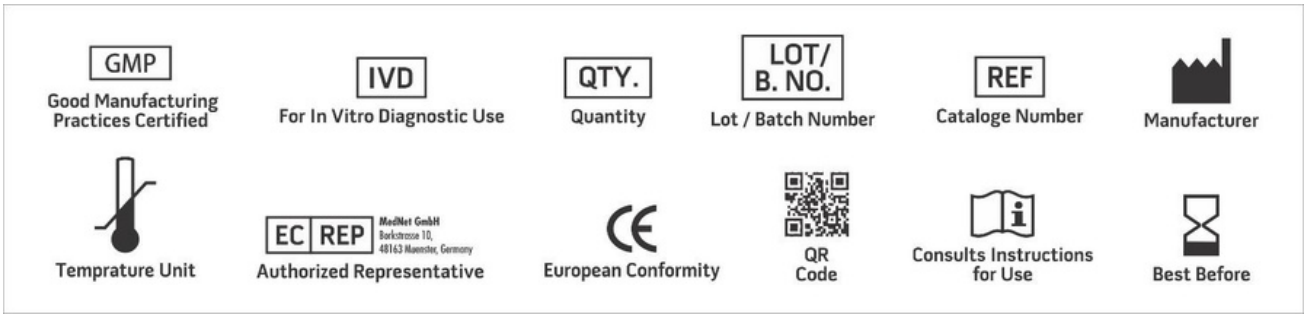
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided 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

1.Moyer NP, Holcomb LA. Laboratory Diagnosis and Infectious Diseases: Principles and Practice. New York: Springer-Verlag.
2.Smith LD, Fient TA. Crit RevMicrobiol. 1990;17:209-30.
3.Murray PR, Baron JH, Pfaller MA, Jorgensen JH, Yolken RH. Manual of Clinical Microbiology, 8 ed. Washington, D.C.: American Society for Microbiology; 2003.
4.APHA. Compendium of Methods for the Microbiological Examination of Foods. Downes FP, Ito K, editors. Washington, D.C. 2001.
5.Finegold SM, Martin WJ, Scott EG, editors. Bailey and Scott's Diagnostic Microbiology. 5 ed. St. Louis. : The C.V. Mosby Co; 1978.



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

*For LabUse Only