



Product Data Sheet

LEPTOSPIRA MEDIUM BASE, KORTHOF, MODIFIED

Product No. GB-DCM-00328-1A

INTENDED USE

For cultivation and maintenance of Leptospira species.

PRODUCT SUMMARY

Leptospirosis is an acute febrile disease caused by members of the genus Leptospira. Direct culture of blood is the most reliable way to detect Leptospira during the first week of illness. After the first week of illness and for several months thereafter, leptospire may be isolated by direct culture of undiluted urine specimens. By autopsy, leptospire may be isolated from kidney and liver tissues as well as from blood and urine. Leptospira Medium Base, Korthof, Modified is formulated as described by Korthof for cultivation and maintenance of Leptospira species.

Product Specifications

Ingredients	Gms / Ltr
Peptic digest of animal tissue	0.800
Sodium chloride	1.400
Sodium bicarbonate	0.020
Potassium chloride	0.040
Calcium chloride	0.040
Monopotassium hydrogen phosphate	0.240
Disodium hydrogen phosphate	0.880

PRINCIPLE

This medium consists of Peptic digest of animal tissue which provide amino acids and other nitrogenous substances to support bacterial growth. Haemoglobin solution and inactivated blood serum provide additional sources of nutrients to the Leptospire. The salts supply essential nutrients for the growth of the organisms. Phosphates form buffering system while sodium chloride maintains osmotic equilibrium and also provides essential ions. All cultures are incubated at room temperature in the dark for up to 6 weeks. The organisms grow below the surface. Material collected from a few centimeters below the surface of broth cultures should be examined weekly for the presence of growth using a direct wet preparation under dark field illumination. Leptospire will exhibit corkscrew like motility.

DISPOSAL

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

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INSTRUCTION FOR USE

- Dissolve 3.42 grams in 1000 ml purified / distilled water.
- Heat if necessary to dissolve the medium completely.
- Distribute in 100 ml amounts in flasks. Sterilize by autoclaving at 115°C for 15 minutes. Cool to 55°C. 2) Preparation of Haemoglobin Solution:
 - To the rabbit blood clot, after removing serum, add equal volume of distilled water.
 - Freeze and thaw repeatedly to haemolyse the corpuscles.
 - Sterilize by Seitz or millipore filtration. 3) Complete Medium:
 - To 100 ml sterile base, add sterile 8 ml inactivated blood serum and 0.8 ml sterile haemoglobin solution.
 - Mix thoroughly. Distribute if desired in 2-3 ml amount in sterile screw capped Bijou bottles/tubes. Test for sterility by incubating at 37°C.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder Off-white to yellow homogeneous free flowing powder.

Appearance of prepared : Yellowish brown coloured, clear to slightly opalescent solution after addition of serum and haemoglobin.

pH (at 25°C) : 7.2± 0.2

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Leptospira interrogans sero. canicola	23470	50-100	luxuriant	30°C	Upto 2-7 Days
Leptospira interrogans sero. Australis	23605	50-100	luxuriant	30°C	Upto 2-7 Days

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.

This product is for research use only.