Product Data Sheet

KUNDRAT AGAR
Product No. GB-DCM-00276-1A

INTENDED USE
For qualitative detection of residues from antibiotics and other chemotherapeutic agents.

Product Description
Kundrat Agar is used for detection of antimicrobial residues in animal feed preparations. The test is carried out using Ampoule of Bacillus stearothermophilus as test microorganisms. It is also used for detection of antimicrobial residues in meat and organ samples; used together with spore suspensions of Bacillus subtilis as test organism. Presence of chemotherapeutic agents is indicated by the formation of inhibition halos or zones around the disc with the sample. The test is performed in the form of an agar diffusion test. Any inhibitors present produce inhibition zones devoid of bacterial growth surrounding the applied samples. With further incubation, the test organism ferments glucose present in the medium to form acid, that causes bromocresol purple to change its colour to yellow. Only the inhibition zone still retains the original violet colour of the indicators. Test Procedure: After autoclaving the medium, cool to 50-60°C. To each 200 ml of the medium add the contents of 1 ampoule of B. stearothermophilus Ampoule, mix, pour in plates. Filter paper discs with a diameter of 6 mm are soaked with the liquid specimen or placed on organ (kidney, liver) or muscle sections. The discs are then slightly pressed onto the surface of the culture medium (up to 6 discs per plate). Two methods are recommended for performing the test: 1. 45 minutes' incubation, rapid test: After placing the discs on the preincubated plates, incubate them for further 45 minutes at 65°C without prediffusion. 2. 3-hour incubation: The plates are not preincubated. After the filter paper discs have been applied to the plates, they should be incubated for 3 hours at 65°C without pre-diffusion. In the case of rapid test, formation of inhibition zones can be seen after 15-25 minutes' incubation in the medium, which is otherwise turbid as a result of spore growth. After the 45 minutes' incubation, the inhibition zones become even more distinct due to the fact that the culture medium changes colour. Formation of inhibition zones is to be regarded as a positive result. In the case of the 3 hours' incubation, only those inhibition zones with a diameter of more than 10 mm can be considered positive. If a distinct colour change has not occurred after 45 minutes or 3 hours, incubation can be prolonged. Cleaning agents, disinfectants and preservatives are not covered by this test. When performing the rapid test, preincubating the inoculated plates enhances growth of the test organism; the inhibition zones then appear more rapidly after application of the samples.

PRINCIPLE
The medium consist of Meat peptone, casein peptone which provides carbonaceous and nitrogenous compounds for the growth of bacteria. Dextrose is the energy source in the medium. Sodium chloride maintains the osmotic balance in the medium. Agar act as solidifying agent.

INSTRUCTION FOR USE
- Dissolve 40.41 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Mix well and pour into sterile Petri plates.

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COMPOSITION

Ingredients	Gms / Ltr
Meat peptone	7.800
Casein peptone	7.800
Yeast extract	2.800
Sodium chloride	3.000
Dextrose	1.000
Starch	4.000
Gelatin	4.000
Bromocresol purple	0.016
Agar	10.000

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder: Cream to yellow coloured with green tinge, homogeneous free flowing powder.

Appearance of prepared medium: Light purple coloured, clear to slightly opalescent gel forms in Petri plates.

PH (at 25°C): 7.1±0.2

Microorganism	ATCC	Inoculum (CFU)	Growth	Recovery	Incubation Temperature	Incubation Period
Bacillus stearothermophilus	7953	50-100	luxuriant	>=50 %	65°C	18-24 Hours

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

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

This product is for research use only.

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