

## TM 2146 - KUNDRAT AGAR, MODIFIED

### INTENDED USE

for the qualitative detection of residues of antibiotics and other chemotherapeutic agents in animal derived food.

### PRODUCT SUMMARY AND EXPLANATION

Kundrat Agar, Modified is recommended for rapid or long term test defined for qualitative detection of residues of antibiotics, sulfonamides and other chemotherapeutic agents from meat and food samples. Cleaning agents, disinfectants and preservatives are not covered by this test. This method was developed by Kundrat and is performed in the form of an agar diffusion test using a spore suspension of *Bacillus stearothermophilus*.

### COMPOSITION

Ingredients	Gms / Ltr
Peptone	17.000
Sodium chloride	3.000
Dextrose (Glucose)	3.000
Starch	3.000
Gelatin	2.500
Bromocresol purple	0.016
Sucrose	2.000
Agar	10.000

### PRINCIPLE

The medium consists of peptone, gelatin, starch and glucose which provides nitrogen, carbon compounds and other essential growth nutrients to *Bacillus stearothermophilus*. The test organism ferments glucose and sucrose in the medium to form acid that causes bromocresol purple to change its colour from purple to yellow. Inhibitory action is seen as clearance around the inoculation zone and retains the original violet colour of the indicator.

### INSTRUCTION FOR USE

- Dissolve 40.52 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 or as desired.

### 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)** : 6.8±0.2

### INTERPRETATION

Cultural characteristics observe after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth after 3-3.5h at 65°C	Colour change to yellow	Antibiotics (mcg)	Zone of inhibition	Incubation Temperature	Incubation Period
<i>Bacillus stearothermophilus</i>	7953	50-100	Good-luxuriant	Positive	Gentamicin (10)	18-24 mm	65°C	18-24 Hours
<i>Bacillus stearothermophilus</i>	7953	50-100	Good-luxuriant	Positive	Gentamicin (30)	20-26 mm	65°C	18-24 Hours
<i>Bacillus stearothermophilus</i>	7953	50-100	Good-luxuriant	Positive	Penicillin (10 IU)	35-40 mm	65°C	18-24 Hours
<i>Bacillus stearothermophilus</i>	7953	50-100	Good-luxuriant	Positive	Streptomycin (10)	14-21 mm	65°C	18-24 Hours

#### PACKAGING:

In pack size of 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.

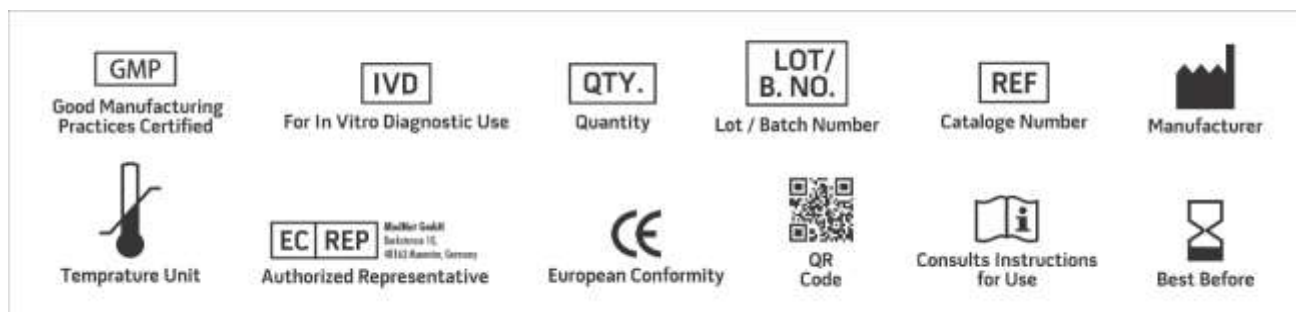
**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

#### DISPOSAL

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

#### REFERENCES

1. Kundrat W., 1968, Methoden zur Bestimmung von Antibiotika-Rückständen in tierischen Produkten. Z. Anal. Chem. ;624-630.
2. Kundrat W., 1972:45- Minuten-Schnellmethode zum mikrobiologischen Nachweis von Hemmstoffen in tierischen Produkten.- Fleischwirtsch., 52; 485-487. 3. German DIN 10182 Part I.



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

**\*For Lab Use Only**  
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