TM 2266 – OXGALL CHRYSOIDIN AGAR WITH MUG (CHRYSOIDIN AGAR WITH MUG)

INTENDED USE

For the isolation and differentiation of *Enterobacteriaceae* and several other Gram negative rods. It can also be used for the identification of *E. coli* from clinical and non-clinical specimens.

PRODUCT SUMMARY AND EXPLANATION

Oxgall Chrysoidin Agar with MUG is based on the formulation by Ziesche et. al. It is a partially selective differential medium recommended for isolation and differentiation of *Enterobacteriaceae* and several other Gram negative rods. Due to several biochemical reactions, it allows the morphological and color-based differentiation of a larger variety of bacterial colonies.

COMPOSITION

Ingredients	Gms / Ltr
Bio Peptones	12.000
Yeast extract	5.000
Sodium chloride	5.000
Bile	8.000
Sodium thiosulphate	1.000
Bromothymol blue	0.120
Ferric Ammonium citrate	2.000
Urea	1.000
Chrysoidine Y	0.0125
4-Methylumbelliferyl-β-D-glucuronide (MUG)	0.100
Agar	14.000

PRINCIPLE

The medium consists of Peptone and yeast extract which serves as source of carbon, nitrogen compounds, long chain amino acids, vitamin B complex and other essential nutrients. Bile is a selective agent to inhibit Gram positive bacteria except enterococci. Thiosulfate along with ferric ammonium citrate is the indicator system for the hydrogen sulfide production (blackening of colonies). Bromothymol blue is a pH indicator. Glycerol serves as a carbohydrate whih imparts yellow colour to the medium on acid production. When urea is degraded by urease, alkaline products are released giving green to blue green coloration to the medium. 4- Methylumbelliferyl β–D Glucuronide (MUG) is converted into 4-methylumbelliferone by β– D glucuronidase forming pathogens, which fluoresces under UV light (360- 370 nm). *E.coli* produces β- D glucuronidase.

INSTRUCTION FOR USE

- Dissolve 48.23 grams in 1000 ml purified / distilled water containing 20ml glycerol.
- Heat to boiling to dissolve the medium completely.

- Sterilize by autoclaving at 15 psi pressure (121°C) for 15minutes. Cool to 45-50°C.
- Mix well and pour in sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Green coloured Slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.5 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of Colony	Fluorescence	Incubation Temperature	Incubation Period
Staphylococcus aureus	25923	>=10^4	Inhibition	0%	-	-	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Luxuriant	>=70%	Yellow to greenish (occasionally orange to brownish)	Positive reaction	35-37°C	18-24 Hours
Proteus mirabilis	43071	50-100	Luxuriant	>=70%	Yellowish to green (black center)	Negative reaction	35-37°C	18-24 Hours
Salmonella Typhimurium	14028	50-100	Luxuriant	>=70%	Yellowish to green (black center)	Negative reaction	35-37°C	18-24 Hours
Shigella flexneri	12022	50-100	Good	40-50%	Green to blue-green colonies	Negative reaction	35-37°C	18-24 Hours
Pseudomonas aeruginosa	27853	50-100	Poor	>=50%	-	Negative reaction	35-37°C	18-24 Hours
Citrobacter freundii	8090	50-100	Luxuriant	>=70%	Yellow colonies, (partly with black center)	Negative reaction	35-37°C	18-24 Hours
Staphylococcus aureus subsp. aureus	6538	>=10^4	Inhibited	0%	Green to blue green	-	35-37°C	18-24 Hours

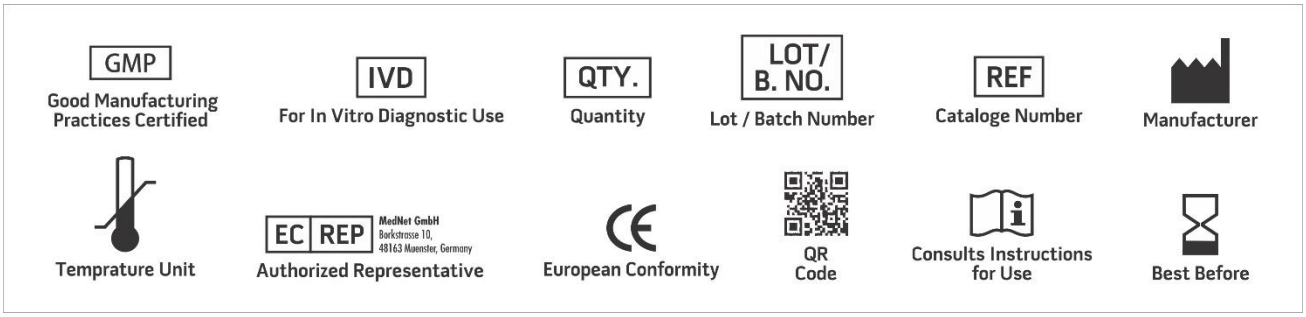
Enterococcus faecalis	29212	50-100	None-poor	0-10%	Yellow (small)	Negative reaction	35-37°C	18-24 Hours

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. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.



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