CM 22,187 -CHROMOGENIC ECC SELECTIVE AGAR

INTENDED USE
For detection of Escherichia coli and coliformsin water and food samples.

PRODUCT SUMMARY AND EXPLANATION
CHROMOGENICECCSELECTIVE AGAR is a selective medium recommended for the simultaneous detection of Escherichia coli and total coliforms present in water andfood samples. The medium is also recommended for clinical samples, if required. The medium contains a chromogenic mixture, which is cleaved by E.coli and other coliforms to give distinguishing colours that helps in their easydifferentiation.

COMPOSITION

Ingredients	Gms / Ltr
Agar	10.000
Peptone, special	6.000
Tryptone	3.300
Sodium chloride	2.000
Disodium hydrogen phosphate	1.000
Sorbitol	1.000
Sodium pyruvate	1.000
L-Tryptophan	1.000
Sodium dihydrogen phosphate	0.600
Chromogenic mixture	0.430
Tergitol 7	0.150

PRINCIPLE
This medium containsPeptonespecial,Tryptone, Sorbitol and Sodium pyruvate which provides carbon, nitrogen, fermentable carbohydrateandothergrowthnutrients for the growth of microorganisms. Disodium hydrogen phosphate and Sodium dihydrogenphosphatearethebuffering agents. Sodium chloride maintains the osmotic equilibrium in the medium. L- Tryptophanimprovestheindolereaction which helps in detection of Escherichia coli and other coliforms. Tergitol- 7 makes themediaselectivebyinhibiting gram positive as well as some gram negative bacteria other than coliforms. ChromogenicmixturecontainstwoChromogens which are cleaved by ß-D-galactosidase and ß-D-glucuronidase enzymeproducedbyE.colitogivedark blue to violet coloured colonies. Coliforms produce red coloured colonies as they are abletocleaveonlyonechromogen. Agar is used for solidification of medium.

The medium is inoculatedeitherbypourplatetechnique or by spreading the sample on the surface of plated medium. Membrane filter techniquecanalsobeused.Toconfirm E. coli, add a drop of Kovacs reagent on the dark blue to violet colony. Formation of cherryredcolourindicatesapositive reaction.

INSTRUCTIONFOR USE
Suspend 26.48gramsin1000mldistilledwater.
Gently heat withswirlingtodissolvethemedium completely.
Sterilize by autoclavingat15psipressure(121°C) for 15 minutes.
If desired, selectivemediumcanbepreparedby aseptically adding the rehydrated contents of 1 vial of Chromogenic ECC Selective Supplement(TS187)topreviously cool to 45-50°C sterile medium.

Mix and pour into sterile Petri plates.
Note: Medium may show haziness, but it does not affect the performance of the medium.

QUALITY CONTROL SPECIFICATIONS

Appearance of powder	:	Light yellow to pink homogeneous free flowing powder
Appearance of prepared medium	:	Light pink coloured, clear to slightly opalescent gel
pH (at 25°C)	:	6.8± 0.2

INTERPRETATION

Cultural characteristics observed after incubation with addition of Chromogenic ECC Selective Supplement (TS 187).
Recovery rate is considered 100% for bacteria growth on Soya Agar

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Colour of colony	Indole production	Recovery	Incubation Temp.	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	Dark blue to violet	Positive reaction	>=50%	35-37℃	18-24 Hours
Citrobacter freundii	8090	50-100	Luxuriant	Salmon to red (big)	Negative reaction	>=50%	35-37℃	18-24 Hours
#Klebsiella aerogenes	13048	50-100	Luxuriant	Salmon to Red	-	>=50%	35-37℃	18-24 Hours
Salmonella enteritidis	13076	50-100	Good	Colourless	Negative reaction	40-50%	35-37℃	18-24 Hours
Shigella flexneri	29508	50-100	Good	Light blue to turquoise	Negative reaction	40-50%	35-37℃	18-24 Hours
Enterococcus faecalis	29212	≥1000	Inhibited	-	-	-	35-37℃	18-24 Hours

#Formerly knownasEnterobacteraerogenes.

PACKAGING

Inpacksizeof100gm & 500gm bottles.

STORAGE

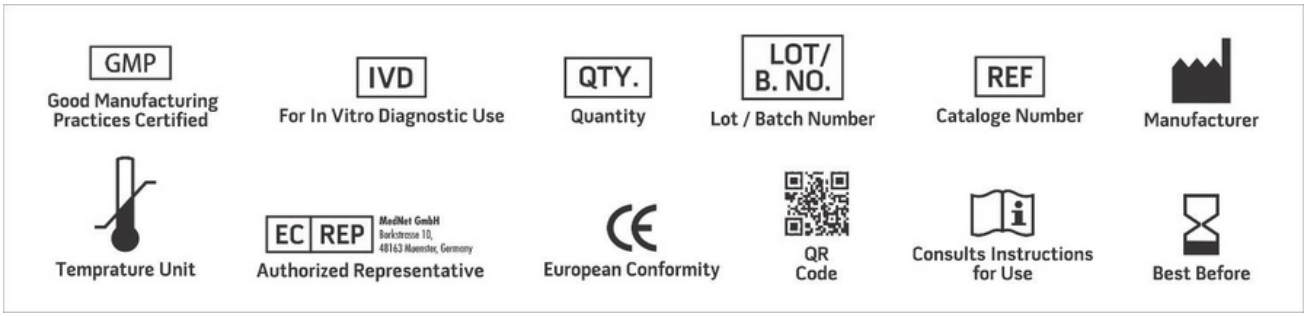
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided 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 powder 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. Frampton E.W., Restaino L. and Blaszko N., J. Food Prot., 51:402. (1988).
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
3. LeMinor L. and Hamida F., Ann. Inst. Pasteur (Paris), 102:267. (1962).
4. Manafi M. and Kneifel W., Zentralbl. Hyg., 189:225. (1989).



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

*ForLab Use Only