

CM 20765 - GLUCOSE CYSTEINE AGAR BASE W/ THIAMINE

INTENDED USE

For cultivation and enumeration of *Pasteurella tularensis* by adding blood or Hemin.

PRODUCT SUMMARY AND EXPLANATION

Francisellatularensis, a gram-negative aerobic bacillus, is the etiological agent of tularemia, which is primarily a disease of wild animals that is perpetuated in nature by ectoparasites, contaminated environment, cannibalism and acute or chronic carriers. Biting and blood sucking insects serve as vectors. *Francisella* (formerly known as *Pasteurella*) cannot be cultured on ordinary medium but require a complex medium containing blood or tissue extracts, thiamine and cysteine. Glucose Cysteine Agar Base w/ Thiamine when supplemented with blood / haemoglobin is recommended for cultivation and enumeration of *F. tularensis* (*Pasteurella tularensis*).

COMPOSITION

Ingredients	Gms / Ltr
Meat peptone	3.000
Papaic digest of soyabean meal	10.000
Sodium chloride	5.000
Cysteine hydrochloride	1.000
Dextrose	25.000
Thiamine	0.0005
Agar	14.000

PRINCIPLE

Meatpeptone and papaic digest of soyabean meal provide essential growth nutrients. Dextrose serves as an easily metabolisable carbohydrate source while sodium chloride maintains the osmotic balance. Thiamine and cysteine hydrochloride serves as growth factor promoters required for culturing *Pasteurella*. Minute droplet like colonies develops in 48 hours.

INSTRUCTIONFORUSE

Dissolve 58 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.

Cool to 45-50°C and aseptically add sterile packed erythrocytes at a final concentration of 2% or 4-5% defibrinated sheep/rabbit blood.

Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Basal medium: Amber coloured, clear to slightly opalescent gel forms. On addition of 4-5% sterile defibrinated sheep/rabbit blood: cherry red coloured opaque gel forms in Petri plates.
pH (at 25°C)	: 6.9±0.2

INTERPRETATION



Cultural characteristics observed with added 4-5% defibrinated sheep blood after an incubation in presence of 10% CO₂.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Francisella tularensis	29684	50-100	Luxuriant	>=70%	35-37°C	48-72 Hours

PACKAGING:

Inpacksize of 100 gm and 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.

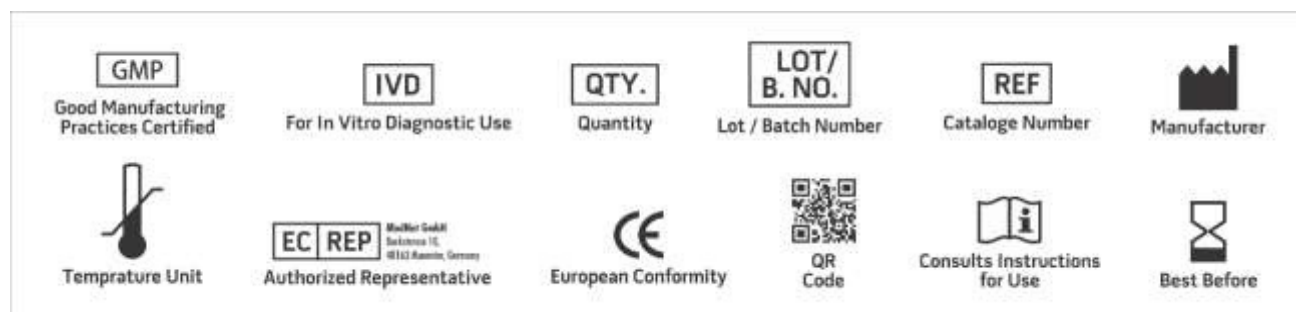
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Murray P. R., Baron J. H., Tenover F. C., Tenover F. C., (Eds.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
2. Collee J. G., Marmion B. P., Fraser A. G., and Simmons A., (Eds.), Mackie and McCartney Practical Medical Microbiology, 1996, 14th Edition, Churchill Livingstone, New York.
3. Manual of Diagnostic Tests and Vaccine for Terrestrial Animals, 2004, 5th Ed., OIE World Organization for Animal Health. 4. Atlas R. M., 2004, Handbook of Microbiological Media, Lawrence C. Parks, (Ed.), 3rd Edition, CRC Press, pg. no 717.



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

*For Lab Use Only

