

TM 739 - GLUCOSE CYSTEINE AGAR BASE W/ THIAMINE

INTENDED USE

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

PRODUCT SUMMARY AND EXPLANATION

Francisella tularensis, 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

Meat peptone 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.

INSTRUCTION FOR USE

- 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



