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Product Information

05598 Feeley Gorman Agar (FG Agar)

Feeley Gorman Agar / Broth is recommended for isolation and presumptive identification of Legionella species.

Composition:

Ingredients	Grams/Litre
Casein acid hydrolysate	17.5
Beef extract	3.0
Starch	1.5
L-Cysteine hydrochloride	0.4
Ferric pyrophosphate, soluble	0.25
Agar	17.0

Final pH 6.9 +/- 0.2 at 25°C

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Directions:
Suspend 40 grams of Feeley Gorman Agar in 1000 ml distilled water. Boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50 °C and may optional aseptically add rehydrated contents of 2vl Legionella Selective Supplement (Cat. No. 18284). Mix well before pouring into sterile tubes or petri plates.

Principle and Interpretation:
Feeley Gorman Agar was formulated by feeley et al [1] for the nonselective enrichment and isolation of *Legionella* species. Although BCYE agar is more sensitive than FG agar, it lacks the helpful diagnostic features that the FG agar has. *L. pneumophila* colonies on CYE agar (Charcoal Yest Extract Agar) do not have the cut-glass appearance and do not produce the brown fluorescent pigmentation of the media as seen with FG agar. It is recommended that both CYE and FG agar should be used, CYE agar because of its high sensitivity and FG agar for its diagnostic characteristics [2].
Casein acid hydrolysate and Beef extract provide organic nitrogen, carbon compounds and other growth factors to the organisms. L-Cysteine hydrochloride is is a reducing agent and act also as source of sulphur containing amino acid. Ferric pyrophosphate serves as a source of iron ions.
Incubation should be carried out in the presence of 2.5% CO_2 but if it exceeds, *Legionella* growth is inhibited due to the acidic condition is formed ($CO_2 + H_2O \rightarrow H_2CO_3$).

Cultural characteristics observed after 4 days at 35°C, under 2.5% CO_2:

Organism (ATCC)	Growth	Flourescence under 366nm
Legionella pneumophila (33153)	+++	bright yellow
Legionella bozemanni (33217)	+++	blue-white
Legionella micdadai (33218)	+++	none

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References:

1. J.C. Feeley, et al, Primary isolation media for legionnaires disease bacterium, J. Clin. Microbiol., 8, 320-325 (1978)
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