Microorganisms



1310: BUTYRIVIBRIO M2 MEDIUM

Casitone (BD Bacto)	10.00	g
Yeast extract (BD Bacto)	2.50	g
D-Glucose	2.00	g
Cellobiose	2.00	g
Maltose	2.00	g
Na-DL-lactate	5.00	g
Clarified rumen fluid	200.00	ml
K ₂ HPO ₄	0.05	g
KH_2PO_4	0.05	g
$(NH_4)_2SO_4$	0.10	g
NaCl	0.10	g
CaCl ₂ x 2 H ₂ O	0.01	g
$MgSO_4 \times 7 H_2O$	0.01	g
Sodium resazurin (0.1% w/v)	0.50	ml
Na_2CO_3	4.00	g
L-Cysteine HCl x H ₂ O	0.30	g
$Na_2S \times 9 H_2O$	0.30	g
Distilled water	800.00	ml

Dissolve ingredients (except carbonate, cysteine and sulfide), boil medium for 1 min, then cool to room temperature under 100% CO $_2$ gas atmosphere. Dispense medium under same gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. Add carbonate from a sterile anoxic stock solution prepared under 80% N $_2$ and 20% CO $_2$ gas mixture. Add cysteine and sulfide form sterile anoxic stock solutions prepared under 100% N $_2$ gas. Adjust pH of the complete medium to 6.5 - 6.8, if necessary.

Clarified rumen fluid (from medium 1310)

Rumen fluid from cow or sheep (obtained from fistulated animals or abattoir refuse) is filtered through muslin, autoclaved at 121° C for 15 min and then centrifuged at 27,000 g for 20 min. The supernatant is made anoxic by sparging with 100% N₂ gas for 15 min, dispensed under same gas atmosphere into anoxic serum vials to 30% of volume and then stored frozen at -20°C.