

ATCC medium: 1912 YTG Medium for alkali thermophilic anaerobes

Na₂HPO₄284.0 mg
KCl.....75.0 mg
Wolfe's Mineral Solution (see below).....5.0 ml
Wolfe's Vitamin Solution (see below).....1.0 ml
Resazurin.....1.0 mg
Yeast extract.....5.0 g
Tryptone (BD 211705).....10.0 g
Distilled water.....850.0 ml

Autoclave basal medium for 15 minutes at 121C. Cool under an atmosphere of 100% N₂. Aseptically add Solutions A - D and enough sterile 2N NaOH to give a final pH 10.2 +/- 0.1.

Solution A:

Na₂CO₃6.2 g
Distilled water.....100.0 ml

Autoclave Solution A under 100% N₂ for 15 minutes at 121C.

Solution B:

Glucose.....3.0 g
Distilled water.....20.0 ml

Autoclave Solution B under 100% N₂ for 15 minutes at 121C.

Solution C:

L-Cysteine . HCl.....125.0 mg
Distilled water.....10.0 ml

Autoclave Solution C under 100% N₂ for 15 minutes at 121C.

Solution D:

Na₂S . 9H₂O125.0 mg
Distilled water.....10.0 ml

Autoclave Solution D under 100% N₂ for 15 minutes at 121C.

Wolfe's Vitamins:

Available from ATCC as a sterile ready-to-use liquid (Vitamin Supplement, catalog no. MD-VS).

Folic acid.....2.0 mg
Pyridoxine hydrochloride....10.0 mg
Riboflavin.....5.0 mg
Biotin.....2.0 mg
Thiamine.....5.0 mg
Nicotinic acid.....5.0 mg
Pantothenic acid.....5.0 mg
Vitamin B12.....0.1 mg
p-Aminobenzoic acid.....5.0 mg
Thioctic acid.....5.0 mg
Distilled water.....1.0 L

Wolfe's Mineral Solution:

Available from ATCC as a sterile ready-to-use liquid (Trace Mineral Supplement, catalog no. MD-TMS.)

Nitrilotriacetic acid.....1.5 g
MgSO₄ . 7H₂O3.0 g
MnSO₄ . H₂O0.5 g
NaCl.....1.0 g
FeSO₄ . 7H₂O0.1 g
CoCl₂ . 6H₂O0.1 g
CaCl₂.....0.1 g
ZnSO₄ . 7H₂O0.1 g
CuSO₄ . 5H₂O0.01 g
AlK(SO₄)₂ . 12H₂O.....0.01 g
H₃BO₃0.01 g
Na₂MoO₄ . 2H₂O.....0.01 g
Distilled water.....1.0 L

Add nitrilotriacetic acid to approximately 500 ml of water and adjust to pH 6.5 with KOH to dissolve the compound. Bring volume to 1.0 L with remaining water and add remaining compounds one at a time.