

ATCC medium: 2347 Medium for benzaldehyde utilization

KH ₂ PO ₄	0.38 g
NaHPO ₄	0.54 g
NaHCO ₃	2.4 g
NH ₄ Cl	0.3 g
NaCl	0.3 g
CaCl ₂ . 2H ₂ O	0.11 g
MgCl ₂ . 6H ₂ O	0.1 g
Benzaldehyde 5 mM (final concentration)*.....	1.0 g
Na ₂ S . 9H ₂ O	0.29 g
Resazurin.....	5.0 mg
Wolfe's Mineral Solution (see below).....	10.0 ml
Wolfe's Vitamin Solution (see below).....	10.0 ml
Distilled deionized water.....	1.0 L

Prepare anaerobically under 80% N₂, 20% CO₂. Adjust pH to 7.0.
Autoclave at 121C for 15 minutes.

*Yeast extract (1.0 g) and Sodium pyruvate (2.2 g) may be substituted for benzaldehyde.

Wolfe's Vitamin Solution:

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

Biotin.....	2.0 mg
Folic acid.....	2.0 mg
Pyridoxine hydrochloride....	10.0 mg
Thiamine . HCl.....	5.0 mg
Riboflavin.....	5.0 mg
Nicotinic acid.....	5.0 mg
Calcium D-(+)-pantothenate...	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
MgSO ₄ . 7H ₂ O	3.0 g
MnSO ₄ . H ₂ O	0.5 g
NaCl.....	1.0 g
FeSO ₄ . 7H ₂ O	0.1 g
CoCl ₂ . 6H ₂ O	0.1 g
CaCl ₂	0.1 g
ZnSO ₄ . 7H ₂ O	0.1 g
CuSO ₄ . 5H ₂ O	0.01 g
AlK(SO ₄) ₂ . 12H ₂ O.....	0.01 g
H ₃ BO ₃	0.01 g
Na ₂ MoO ₄ . 2H ₂ O.....	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.

