

1234: ACIDITHIOBACILLUS FERRIVORANS MEDIUM

Na ₂ SO ₄	1.40	g
(NH ₄) ₂ SO ₄	3.00	g
KCl	0.10	g
MgSO ₄ × 7 H ₂ O	0.50	g
K ₂ HPO ₄	0.05	g
Ca(NO ₃) ₂ × 4 H ₂ O (0.1% w/v)	20.00	ml
(NH ₄) ₂ Ni(SO ₄) ₂ × 6 H ₂ O (0.1% w/v)	20.00	ml
Modified Wolin's mineral solution	10.00	ml
K ₂ S ₄ O ₆	0.80	g
FeSO ₄ × 7 H ₂ O	0.03	g
Distilled water	950.00	ml

Dissolve ingredients (except tetrathionate and ferrous sulfate), adjust pH to 2.5 with H₂SO₄ and autoclave. After cooling, add tetrathionate from a 100 mM stock solution and FeSO₄ from a 10 mM stock solution (prepared in water adjusted to pH 2.0 with H₂SO₄). Both solutions should be freshly prepared and sterilized by filtration.

For DSM 27026: Omit tetrathionate and ferrous sulfate. Add 0.90 g/l D-fructose as substrate after autoclaving from a sterile stock solution. Adjust pH of complete medium to 3.5.

For DSM 104037: Omit tetrathionate and ferrous sulfate. Add 0.30 g/l D-glucose as substrate after autoclaving from a sterile stock solution. Adjust pH of complete medium to 4.5.

Modified Wolin's mineral solution (from medium 141)

Nitrilotriacetic acid	1.50	g
MgSO ₄ × 7 H ₂ O	3.00	g
MnSO ₄ × H ₂ O	0.50	g
NaCl	1.00	g
FeSO ₄ × 7 H ₂ O	0.10	g
CoSO ₄ × 7 H ₂ O	0.18	g
CaCl ₂ × 2 H ₂ O	0.10	g
ZnSO ₄ × 7 H ₂ O	0.18	g
CuSO ₄ × 5 H ₂ O	0.01	g
AlK(SO ₄) ₂ × 12 H ₂ O	0.02	g
H ₃ BO ₃	0.01	g
Na ₂ MoO ₄ × 2 H ₂ O	0.01	g
NiCl ₂ × 6 H ₂ O	0.03	g
Na ₂ SeO ₃ × 5 H ₂ O	0.30	mg
Na ₂ WO ₄ × 2 H ₂ O	0.40	mg



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Distilled water	1000.00	ml
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First dissolve nitrilotriacetic acid and adjust pH to 6.5 with KOH, then add minerals. Adjust final to pH 7.0 with KOH.