

Xianghao's Wild-Type Medium

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Adapted from Zhu et al., Appl. Environ. Microbiol. 2008, with the following modifications:

- a) EDTA used at a concentration of 20 mg/L instead of 8.4 mg/L
- b) no leucine necessary
- c) citric acid used at a concentration of 20 mg/L instead of 1.2 g/L
- d) NH_4Cl and K_2SO_4 used instead of $(\text{NH}_4)_2\text{SO}_4$
- e) no Al.
- f) no Ca.

Basic Medium for 1 liter volume:

Solution XWT-A (prepare fresh, 800 mL needed)

(autoclaved)

KH_2PO_4	1.80 g/L (1.44 g/800 mL)
$\text{K}_2\text{HPO}_4 \cdot 3\text{H}_2\text{O}$	3.175 g/L (2.54 g/800 mL)
K_2SO_4	2.5 g/L (2.00 g/800 mL)
NH_4Cl	4.38 g/L (3.50 g/800 mL)
$\text{Na}_2(\text{EDTA}) \cdot 2\text{H}_2\text{O}$	25.0 mg/L (20 mg/800 mL)

Adjust to pH 7.0 with 30% (w/v) NaOH

Solution XWT-B (solution may be stored on counter, 50 mL needed)

(autoclaved)

$\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$	3.0 g/L
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Solution XWT-C (solution may be stored in refrigerator, 50 mL needed)

(filtered)

thiamine·HCl	0.40 g/L
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Solution XWT-D (solution may be stored on counter, 1 mL needed)

(filtered)

Citric acid	20 g/L
$\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$	0.25 g/L
$\text{CuCl}_2 \cdot 2\text{H}_2\text{O}$	0.125 g/L
$\text{MnSO}_4 \cdot \text{H}_2\text{O}$	1.25 g/L
$\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$	0.875 g/L
H_3BO_3	0.06 g/L
$\text{Na}_2\text{MoO}_4 \cdot 2\text{H}_2\text{O}$	0.25 g/L
$\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$	5.5 g/L

Solution XWT-E (prepare fresh, 100 mL needed)

(autoclaved)

Glucose	50 g/L (this will result in 5.0 g/L in final solution)
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Volume needed for the final medium (per liter):

XWT-A	800 mL
XWT-B	50 mL
XWT-C	50 mL
XWT-D	1 mL
XWT-E	100 mL
Total	1001 mL

Composition of Final Medium

Component	Concentration
glucose	5.0 g/L
NH ₄ Cl	3.50 g/L
KH ₂ PO ₄	1.44 g/L
K ₂ HPO ₄ ·3H ₂ O	2.51 g/L
K ₂ SO ₄	2.00 g/L
Na ₂ (EDTA)·2H ₂ O	20.0 mg/L
MgSO ₄ ·7H ₂ O	0.15 g/L
ZnSO ₄ ·7H ₂ O	0.25 mg/L
CuCl ₂ ·2H ₂ O	0.125 mg/L
MnSO ₄ ·H ₂ O	1.25 mg/L
CoCl ₂ ·6H ₂ O	0.875 mg/L
H ₃ BO ₃	0.06 mg/L
Na ₂ MoO ₄ ·2H ₂ O	0.25 mg/L
FeSO ₄ ·7H ₂ O	5.50 mg/L
citric acid	20 mg/L
thiamine·HCl	20 mg/L