

Supplementary Table S1. The preparation methods of mother liquor of mLV and DCR medium

Category	mLV	Dosage (g L ⁻¹)	DCR	Dosage (g L ⁻¹)
Macroelements (g L ⁻¹)	ammonium nitrate (NH ₄ NO ₃)	8.25	ammonium nitrate (NH ₄ NO ₃)	4
	potassium nitrate (KNO ₃)	9.5	potassium nitrate (KNO ₃)	3.4
	potassium phosphate monobasic (KH ₂ PO ₄)	1.7	calcium nitrate tetrahydrate(CaNO ₃ ·4H ₂ O)	5.56
	magnesium sulfate heptahydrate (MgSO ₄ ·7H ₂ O)	9.25	potassium phosphate monobasic (KH ₂ PO ₄)	1.7
	calcium chloride dihydrate (CaCl ₂ ·2H ₂ O)	0.11	magnesium sulfate heptahydrate (MgSO ₄ ·7H ₂ O)	3.7
			calcium chloride dihydrate (CaCl ₂ ·2H ₂ O)	0.85
Microelements (g L ⁻¹)	potassium iodide (KI)	0.415	potassium iodide (KI)	0.62
	boric acid (H ₃ BO ₃)	3.1	boric acid (H ₃ BO ₃)	2.23
	manganese sulfate dihydrate (MnSO ₄ ·2H ₂ O)	2.1	manganese sulfate dihydrate (MnSO ₄ ·2H ₂ O)	0.86
	zinc vitriol (ZnSO ₄ ·7H ₂ O)	4.3	zinc vitriol (ZnSO ₄ ·7H ₂ O)	0.025
	sodium molybdate dihydrate (NaMoO ₄ ·2H ₂ O)	0.125	sodium molybdate dihydrate (NaMoO ₄ ·2H ₂ O)	0.083
	anhydrous copper sulfate (CuSO ₄ ·5H ₂ O)	0.05	anhydrous copper sulfate (CuSO ₄ ·5H ₂ O)	0.0025
	cobalt chloride hexahydrate (CoCl ₂ ·6H ₂ O)	0.013	cobalt chloride hexahydrate (CoCl ₂ ·6H ₂ O)	0.0025
Organic Matters (g L ⁻¹)			nickel chloride (NiCl ₂)	0.025
	inositol(C ₆ H ₁₂ O ₆)	0.01	inositol(C ₆ H ₁₂ O ₆)	0.1
	thiamine hydrochloride (C ₁₂ H ₁₇ ClN ₄ OS·HCl)	0.05	thiamine hydrochloride (C ₁₂ H ₁₇ ClN ₄ OS·HCl)	0.05
	pyridoxine hydrochloride (C ₈ H ₁₁ NO ₃ ·HCl)	0.01	pyridoxine hydrochloride (C ₈ H ₁₁ NO ₃ ·HCl)	0.05
	nicotinic acid (C ₆ H ₅ NO ₂)	0.05	nicotinic acid (C ₆ H ₅ NO ₂)	0.2
			glycine (C ₂ H ₅ NO ₂)	0.2
Iron Salts (g L ⁻¹)	disodium ethylenediamine tetraacetate dihydrate (Na ₂ ·EDTA·2H ₂ O)	3.73	disodium ethylenediamine tetraacetate dihydrate (Na ₂ ·EDTA·2H ₂ O)	3.73
	ferrous sulfate heptahydrate (FeSO ₄ ·7H ₂ O)	2.78	ferrous sulfate heptahydrate (FeSO ₄ ·7H ₂ O)	2.78