

Materials List for:

Caffeine Extraction, Enzymatic Activity and Gene Expression of Caffeine Synthase from Plant Cell Suspensions

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Materials

Name	Company	Catalog Number	Comments
Murashige & Skoog Basal salt mixture	PhytoTechnology Laboratories	M524	Package Size: 50 L Reagent (mg/L) Ammonium Nitrate (1650) Boric acid (6.2) Calcium chloride, anhydrous (322.2) Cobalt Chloride•H ₂ O (0.025) Cupric Sulfate•5H ₂ O (0.025) Na ₂ EDTA•2H ₂ O (37.26) Ferrous Sulfate•7H ₂ O (27.8) Magnesium Sulfate, Anhydrous (180.7) Manganese Sulfate•H ₂ O (16.9) Molybdic Acid (Sodium Salt)• 2H ₂ O (0.25) Potassium Iodide (0.83) Potassium Nitrate (1900) Potassium Phosphate, Monobasic (170) Zinc Sulfate•7H ₂ O (8.6) Supplemented with myo-inositol (100) thiamine (10) cysteine (25) sucrose (30000) 2,4-dichlorophenoxyacetic acid (3) 6-benzylamine purine (1)
Caffeine	SIGMA	C0750-5G	STANDARD-5g
Theobromine	SIGMA	T4500	20 g
CAMAG TLC Scanner-4	CAMAG	27.62	
WinCATS Planar Chromatography Manager software	CAMAG	1.4.10	Software
Isoamyl alcohol (24:1)	SIGMA	C-0549	500 mL
Cyclohexane	JALMEX	C4375-13	1 L
Acetone	J.T. BAKER	900643	4 L
Methanol	J.T. BAKER	9093-03	4 L
Chloroform	JALMEX	C-4425-15	3.5 L
TLC silica gel 60 F254	Merck	1.05554.0001	TLC plate
β-mercaptoethanol	M6250	SIGMA	100 mL
(+)-sodium L- ascorbate	A4034	SIGMA	100 g
Trizma base	SIGMA	T6066	1 Kg

Hydrochloric acid 36.5-38%	J.T. Baker	9535-05	2.5 L
Pierce BCA Protein Assay Kit	Thermo scientific	232227	Kit
Methyl [3H]-S-adenosyl methionine	Perkin Elmer	NET155	Specific activity of 15 Ci/mmol
Liquid scintillation vials	SIGMA	Z253081	
Thermostatic bath/circulator	Cole Parmer	60714	
Micro centrifuge tube	Eppendorf		Tube of 1.5 mL
Cryogenic vials	Heathrow Scientific	HS23202A	2 mL
Centrifuge 5804	Eppendorf	5804 000925	
Vortex	Thermolyne	LR 5947	
Porcelain mortar	Fisherbrand	FB961B	
Filter paper	Whatman	Z274844	Porosity medium
Picofuge	Stratagene	400550	2000 x g
Analytical balance	AND	HR-120	Model HR-120
Scintillation counter	Beckman Coulter	6500	
Gel photodocumentation system	Bio-Rad	Chemic XRS	Model Chemic XRS
Compact UV lamp	UVP	95002112	UVGL-25
Scienceware HDPE Buchner funnel	SIGMA	2419907	Type 37600 mixer
TRIzol reagent	Thermo scientific	15596-018	200 mL
ReverdAid Reverse transcriptase	Thermo scientific	#EP0441	10000 U
Oligo (dT) ₁₈ primer	Thermo scientific	#S0131	100 µM
DNase I, RNase-free	Thermo scientific	#EN0525	1000 U
Magnesium chloride	Thermo scientific	EN0525	1.25 mL
Ethylenediaminetetraacetic acid	Thermo scientific	EN0525	1 mL
dNTP mix	Thermo scientific	R0191	R0191
SYBR Green qPCR Master Mix (2X)	Thermo scientific	K0251	For 200 reactions of 25 µL
PikoReal	Thermo scientific	2.2	Software
Phenol, pH 8.0, equilibrated, Molecular Biology Grade, Ultrapure	USB	J75829	100 mL
Isopropyl alcohol	Karal	2040	1 L
Ethyl alcohol	SIGMA	64175	1 L
Diethyl pyrocarbonate	SIGMA	D5758	100 mL
Lab Rotator	LW Scientific	Mod. LW210	