

Materials List for

Direct Agroinoculation of Maize Seedlings by Injection with Recombinant Foxtail Mosaic Virus and Sugarcane Mosaic Virus Infectious Clones

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Materials

Name	Company	Catalog Number	Comments
1 mL syringes	Fisher Scientific	14955450	alternatively, BD 309659
15 mL Falcon Tubes	Corning Science	352059	
1kb+ Ladder	ThermoFisher Scientific	10787018	For assessing sizes of PCR products
25G x 5/8" PrecisionGlide Needles	Becton, Dickinson and Company (BD)	305122	
28°C Incubator			For <i>Agrobacterium</i>
37°C Incubator			For <i>E. coli</i>
Acetosyringone	MilliporeSigma	D134406	Optional
Agar	MilliporeSigma	A4800	
Agarose	GeneMate	E-3120	For making gels to check for virus/insert stability
<i>Agrobacterium tumefaciens</i> Strain GV3101			Carries <i>vir</i> plasmid encoding T-DNA transfer machinery, Rif ^R , Gm ^R , from lab stock
Bsu36I	New England Biolabs	R0524	
cDNA Kit	ThermoFisher Scientific	K1672	Maxima First Strand cDNA Synthesis Kit with Dnase
Chloroform	Fisher Scientific	C298	For RNA extraction
Cuvettes	Fisher Scientific	14955127	1.5 mL
D-(+)-Glucose	MilliporeSigma	G7528	Alkaline Lysis
DH5alpha Competent <i>E. coli</i> Cells	New England Biolabs	C2987	
DNA Ligase	ThermoFisher Scientific	K1422	Rapid DNA Ligation Kit
EDTA (Ethylenediamine Tetraacetic Acid, Disodium Salt Dihydrate)	Fisher Scientific	S311	Alkaline Lysis
Ethanol			For RNA extraction
Fertilizer			Peters Fertilizer 15-15-15 Concentrate

Flat Inserts	T.O. Plastics	715357C	For germinating seeds in trays
Flats	T.O. Plastics	710245C	For germinating seeds in trays
FluorCam	Photon Systems Instruments		To assess maize plants for GFP expression before microscope
Fluorescence Microscope			
Gel Electrophoresis Box			
Gentamycin Sulfate	Fisher Scientific	BP918	
Glacial Acetate	Fisher Scientific	A38	Alkaline Lysis
Glycerol	Fisher Scientific	G33-500	For saving frozen stocks of bacteria
Go-Taq, 2X	Promega	M7123	
Hydrochloric Acid	Fisher Scientific	A144	for pHing solutions
Isopropanol	Sigma-Aldrich	109827	For RNA extraction
Kanamycin, Monosulfate	Fisher Scientific	BP906	
Large Pots	Kordlok	SQL0550	5x5x4" or bigger. For transplanting seedlings.
Luria Bertani (LB) Broth, Miller	Himedia	M1245	
Magnesium Sulfate Heptahydrate	Amresco	662	
Maize Golden Bantam Sweet Corn Seed	American Meadows, West Coast Seeds		
Maize Inbred Seed			Our seed comes from our institution, but we are not able to provide this for other researchers.
Maxima H Minus Reverse Transcriptase	ThermoFisher Scientific	EP0753	
MilliQ	Elga		Purelab Ultra
Monarch PCR & DNA Cleanup Kit	New England Biolabs	T1030	
Pacl	New England Biolabs	R0547	
Peters Excel 15-5-15 Fertilizer	ICL Specialty Fertilizers	G99140	
Petri Dish, 95 mm x 15 mm	Fisher Scientific	FB0875714G	
pH Meter			
Potassium Acetate	Fisher Scientific	P171	Alkaline Lysis
Primers			Our primers were synthesized through our institutional DNA facility or through IDT
PspOMI	New England Biolabs	R0653	
Q5 High-Fidelity DNA Polymerase	New England Biolabs	M0491	
Rifampicin	EMD Millipore Corp	557303	
Rnase A	ThermoFisher Scientific	12091021	Alkaline Lysis
Sbfl	New England Biolabs	R0642	
Scale			For weighing chemicals for media or buffers
SDS (Sodium Dodecyl Sulfate)	Fisher Scientific	BP166	Alkaline Lysis
Sodium Hydroxide	Fisher Scientific	S318	Alkaline Lysis
Soil Substrate	SunGro Horticulture	SS#1-F1P	Sunshine Mix #1/Fafard-1P, any soil mix that maize grows well in is sufficient
Spectrophotometer			For measuring OD600
Sybr Safe, 10,000X	Invitrogen	S33102	For making gels to check for virus/insert stability
Thermocycler			For PCR
Tris Base	Fisher Scientific	BP154	Alkaline Lysis
Trizol	Ambion	15596018	For RNA extraction

Weigh Paper			For weighing chemicals for media or buffers
Xbal	New England Biolabs	R0145	