

Materials List for:

Identification of Post-translational Modifications of Plant Protein Complexes

Sophie J. M. Piquerez¹, Alexi L. Balmuth², Jan Sklenář², Alexandra M.E. Jones^{1,2}, John P. Rathjen³, Vardis Ntoukakis¹

¹School of Life Sciences, University of Warwick

²The Sainsbury Laboratory, Norwich Research Park

³Research School of Biology, The Australian National University

Correspondence to: Vardis Ntoukakis at V.Ntoukakis@warwick.ac.uk

URL: <https://www.jove.com/video/51095>

DOI: [doi:10.3791/51095](https://doi.org/10.3791/51095)

Materials

Name	Company	Catalog Number	Comments
MgCl ₂	Sigma	M8266	
MES	Sigma	M8250	
Acetosyringone	Sigma	D134406	toxic - 1 M stock in DMSO
Syringe 1 ml sterile	Terumo		
Syringe needle	Terumo	NN-2525R	
Silwet L-77 (surfactant)	Lehle Seeds	VIS-01	toxic
MG-132 (Z-Leu-Leu-Leu-al)	Sigma	C2211	1 M stock in DMSO, store at -80 °C
MS salts	Sigma	M5524	oxidizing, toxic
Sucrose	Sigma	16104	
Trizma base	Sigma	T1503	adjust pH with 1 N HCl to make 1 M Tris-HCl buffer
NaCl	Sigma	S3014	5 M stock
EDTA	Sigma	E6758	toxic - 0.5 M stock
EGTA	Sigma	E4378	
Glycerol	National Diagnostics	EC-606	
IGEPAL CA-630	Sigma	I8896	corrosive
PVPP (polyvinylpolypyrrolidone)	Sigma	P5288	do not confuse with PVP
DTT (DL-dithiothreitol)	Sigma	43815	toxic - 1 M stock, store at -20 °C
Plant protease inhibitor cocktail	Sigma	P9599	do not freeze/thaw too many times
PMSF (phenylmethylsulfonyl fluoride)	Sigma	P7626	corrosive, toxic
Calyculin A	Cell Signaling Technology	9902	
Sodium Fluoride (NaF)	Sigma	S7920	toxic - 1 M stock
Sodium Molybdate (Na ₂ MoO ₄)	Sigma	S6646	0.5 M stock
Sodium orthovanadate (Na ₃ VO ₄)	Sigma	450243	toxic - Prepare a 200 mM solution of sodium orthovanadate. Adjust the pH to 10.0 using either 1 N NaOH or 1 N HCl. The starting pH of the sodium orthovanadate solution may vary with lots of the chemical. At pH 10.0 the solution will be yellow. Boil the solution until it turns colorless (approximately 10 min). Cool to room temperature. Readjust the pH to 10.0 and repeat steps 3 and 4 until the solution remains colorless and the pH stabilizes at 10.0.

Okadaic acid	Santa Cruz Biotechnology	sc-3513	
Kinematica Polytron tissue homogeniser	Fisher Scientific	08-451-320	
Miracloth	Merck Millipore	475855-1R	
anti-FLAG M2 agarose	Sigma	A2220	this matrix is recommended
Streptavidin-agarose	Thermo-Scientific	20347	this matrix is recommended
GFP-Trap_A	Chromotek	gta-20	this matrix is recommended
Anti-HA-Agarose	Sigma	A2095	this matrix is recommended
0.45 µm filter	VWR	513-1902	
BSA	Sigma	A7906	
FLAG peptide	Sigma	F3290	
D-biotin	Sigma	47868	
StrataClean resin	Agilent	400714	this absorption resin is recommended for protein precipitation
Mini-PROTEAN Tetra Cell	Biorad		
PROTEAN II XL Cell	Biorad		
SimplyBlue SafeStain	Invitrogen	LC6060	this stain is recommended
Protein low-binding tubes (LoBind)	Eppendorf	0030 108.116	these tubes are recommended
Ammonium bicarbonate (ABC)	Sigma	9830	toxic
Acetonitrile	VWR	83639	toxic, flammable
2-chloroacetamide	Sigma	22790	toxic
Trypsin	Promega	V5280	irritant, sensitizing
Formic acid	Sigma	14265	toxic, corrosive
Water-bath sonicator	Ultravawe	Ultra BT Ultrasonic Bath	
LTD-Orbitrap XL	Thermo-Scientific		
Trichostatin A	Sigma	T8552	toxic