



Republic of the Philippines  
**VISAYAS STATE UNIVERSITY**  
 Visca, Baybay City, Leyte

## PURCHASE REQUEST

PPMP No. : PPMP-2025-031525-1038

PR No.: GF-2025-08-00956

Date: 08-03-2025

Dept./Office: PRCRTC

Category: Laboratory  
Supplies

Section/End-User: John S. Bahandl

Project Title/Code: PhilRootcrops Genomics(Tissue  
Culture)

Funding Source: General Fund - MOOE

Item #	Item Description	Unit	Qty	Unit Cost	PAR/ICS	Total Cost
1	Reagent Bottles	pcs	5	750.00		3,750.00
<b>Specification:</b>  ?Amber Glass Wide Mouth Bottle Chemical Reagent Storage Bottles ?500 mL capacity <b>?Features:</b> ?Glass body for chemical, thermal expansion, shock, and heat resistance. ?Amber glass bottles are perfect for storing materials which are sensitive to degradation from light. ?Wide mouth, cylindrical shape body for a wide variety of applications that require solution containment. ?Ground glass stopper seals the bottle to secure contents and help prevent spills and evaporation. ?Useful for storing both liquids and powders, widely used in chemistry and biology application						
2	Sodium EDTA dihydrate,	btl	2	10,000.00		20,000.00
<b>Specification:</b>  <b>Specifications:</b> <ul style="list-style-type: none"> <li>• <b>Chemical Testing:</b> Plant tissue culture tested for at least 20 years</li> <li>• <b>Compliance:</b> ISO compliant</li> <li>• <b>Grade:</b> ACS Reagent Grade, PH EUR</li> <li>• <b>Standards:</b> Meets USP standards</li> <li>• <b>Application:</b> Bioreagent suitable for cell culture</li> <li>• <b>Quantity:</b> 250 grams</li> </ul>						
3	Delicate Task Wipes	boxes	10	800.00		8,000.00
<b>Specification:</b>  ?4.4 x 8.4 inches (11 x 21 cm) ?280 sheets/box ?lint-free						
4	Alcohol, Ethyl, 95% (Tech)	liters	15	1,500.00		22,500.00
5	Potassium dihydrogen phosphate, AR	gms	2	500.00		1,000.00
6	Potassium iodide, KI	btl	1	12,000.00		12,000.00
<b>Specification:</b>						

<ul style="list-style-type: none"> <li>Analytical reagent grade</li> <li>powder</li> <li>500g/bottle</li> </ul>						
7	Chloroform 2.5L	btl	2	4,000.00		8,000.00
<b>Specification:</b> Analytical Reagent Grade 2.5L per bottle						
8	Ethanol Absolute, 2.5 Liters/ bottle	btl	1	5,000.00		5,000.00
9	Pipette Tip Holder Box 28 Vents	box of 50's	3	1,000.00		3,000.00
<b>Specification:</b> ?For use with 5ml pipette tips						
10	N,N,N',N'-Tetramethylethylenediamine (TEMED)	btl	2	6,427.00		12,854.00
<b>Specification:</b> <ul style="list-style-type: none"> <li>Molecular biology, at least ?99.0% assay quality</li> <li>Suitable for protein analysis, SDS-PAGE and Western blot</li> <li>DNases and RNases free</li> <li>Phosphatases and proteases free</li> <li>Liquid form</li> <li>Bottle of at least 25mL</li> </ul>						
11	Ammonium persulfate	btl	3	7,000.00		21,000.00
<b>Specification:</b> <ul style="list-style-type: none"> <li>Molecular biology, at least ?98.0% assay quality</li> <li>Suitable for protein analysis, SDS-PAGE and Western blot</li> <li>DNases and RNases free</li> <li>Phosphatases and proteases free</li> <li>Solid form</li> <li>Bottle of at least 25g</li> </ul>						
12	Dimethyl sulfoxide (DMSO), MBG	btl	2	6,450.00		12,900.00
<b>Specification:</b> ?Molecular Biology Grade (MBG) DMSO ?Suitable for Molecular Applications ?Nuclease-Free DMSO ?DNase-Free, RNase-Free, Protease-Free, Phosphatase-Free ?Bottle of at least 500mL						
13	L-Proline (pure grade), 500g	btl	1	6,000.00		6,000.00
<b>Specification:</b>						



?L-Proline (pure grade; solid 500g) ?Assay: ?99% ?White crystals						
14	Amber Reagent Bottle, 1L	pc	3	1,000.00		3,000.00
<b>Specification:</b> <ul style="list-style-type: none"> <li>• With Stopper/Screw Cap</li> <li>• Material: Glass/Borosilicate Glass</li> <li>• Capacity: 1L</li> </ul>						
15	Amber Reagent Bottle, 500mL	pc	3	750.00		2,250.00
<b>Specification:</b> <ul style="list-style-type: none"> <li>• With Stopper/Screw Cap</li> <li>• Material: Glass/Borosilicate Glass</li> <li>• Capacity: 500mL</li> </ul>						
16	Agarose, Certified Molecular Biology Grade	btl	1	15,900.00		15,900.00
<b>Specification:</b> <ul style="list-style-type: none"> <li>• Certified molecular biology grade</li> <li>• For routine separation of ~ 100bp to 20kb</li> <li>• Free of DNA binders, inhibitors, DNases, RNases</li> <li>• Low sulfate content</li> <li>• Size: 125g per bottle</li> </ul>						
17	MgCl <sub>2</sub> Solution, Molecular Biology Standard	kit	3	5,500.00		16,500.00
<b>Specification:</b> <ul style="list-style-type: none"> <li>• Certified molecular biology grade</li> <li>• For PCR analysis</li> <li>• Concentration: 50mM</li> <li>• Size: 1.25mL</li> </ul>						
18	PCR Tube Rack with Cover	pc	7	650.00		4,550.00
<b>Specification:</b> <ul style="list-style-type: none"> <li>• <b>Purpose:</b> Storage of PCR tubes</li> <li>• <b>Material:</b> Polypropylene (PP), autoclavable</li> <li>• <b>Capacity:</b> 96 tubes</li> <li>• <b>Suitable For:</b> 0.2 mL PCR tube strips and plates</li> <li>• <b>Features:</b> <ul style="list-style-type: none"> <li>◦ Stackable with or without lid</li> <li>◦ Convenient design for easy handling</li> </ul> </li> </ul>						
19	Glycerol- Cell Culture Tested	btl	2	12,250.00		24,500.00

**Specification:**

- Glycerol is a viscous liquid that is widely used in molecular biology research.
- Product Description
- Molecular Formula: C<sub>3</sub>H<sub>8</sub>O<sub>3</sub>
- Molecular Weight: 92.1
- CAS Number: 56-81-5
- Melting point: 17.8 °C
- Density: 1.26 g/ml
- Synonyms: glycerin, 1,2,3-propanetriol
- G2025-100mL

20	<b>Magnesium Sulphate (MgSO<sub>4</sub>.7H<sub>2</sub>O) suitable for plant cell and tissue culture</b>	btl	1	2,000.00		2,000.00
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**Specification:**

- **Purity:** Suitable for plant cell and tissue culture
- **Molecular Weight:** 169.01 g/mol
- **Appearance:** Colourless efflorescent crystals
- **Pack Size:** 500 grams

21	<b>Tris-EDTA Buffer Solution</b>	btl	2	8,500.00		17,000.00
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**Specification:**

Tris-EDTA buffer solution, for molecular biology, pH 8.0±0.1 (25 °C), DNase, RNase, protease, phosphatase-free, 500ml

22	<b>NaOH</b>	btl	1	6,000.00		6,000.00
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**Specification:**

- Molecular biology grade
- 500g per bottle
- in pellets form

**SPECS:**

- Form: solid
- Colour: colourless
- Melting point: 323°C
- Boiling point: 1390°C
- Flash point: -
- Density: 2.13 g/cm<sup>3</sup>
- Mol Weight: 40.00 g/mol
- Storage temp: RT

DNases/RNases/Proteases : N.D.

Assay >99.0%

pH >12 (1M in H<sub>2</sub>O)

Carbonate (CO<sub>3</sub>) <1.0%

Chloride (Cl) <0.0005%

Phosphate (PO<sub>4</sub>) <0.0005%

Sulfate (SO<sub>4</sub>) <0.0005%

Calcium (Ca) <0.0005%

Copper (Cu) <0.0002%

Iron (Fe) <0.0005%

Potassium (K) <0.05%

Magnesium (Mg) <0.0005%

Lead (Pb) <0.0005%

Zinc (Zn) <0.001%

23	GelRed Nucleic Acid Gel Stain	tubes	2	18,000.00		36,000.00
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**Specification:**

- Volume: 5 ml/tube
- Catalog No.: 41003 or 41003-1
- Assay type: DNA/RNA gel staining

1. GelRed is a fluorescent nucleic acid stain designed to replace the highly toxic ethidium bromide (EtBr) for staining dsDNA, ssDNA or RNA in agarose gels or polyacrylamide gels.
2. It is also compatible with downstream DNA manipulations such as restriction digest, sequencing, and cloning.
3. **Easy disposal:** Passed environmental safety tests for direct disposal down the drain or in regular trash
4. **Ultra-sensitive:** Much more sensitive than EtBr and SYBR® Safe
5. **Extremely stable:** Available in water, stable at room temperature for long-term storage and microwavable
6. **Simple to use:** Very simple procedures for precast or post-electrophoresis gel staining
7. **Compatible with a standard UV transilluminator :** Replaces EtBr with no optical setting change
8. **Compatible with downstream applications :** Compatible with gel purification, restriction digest, sequencing and cloning.
9. Each tube contains 0.5ml.

24	Amber Reagent bottle, 1000mL, autoclavable	pc	5	700.00		3,500.00
25	CTAB (Cetyl Trimethylammonium Bromide), molbio grade, 500g/bottle	500ml/bot	2	10,000.00		20,000.00
26	Beta-mercaptoethanol, molbiograde, 25ml/bottle	500ml/bot	1	15,000.00		15,000.00
27	TRIS-base, pH 8, molbio grade, 500g/bot	500ml/bot	1	10,000.00		10,000.00
28	Loading dye, 6x, 3x1mL	tube	5	5,000.00		25,000.00
29	Proteinase K, 100 mg	tube	2	15,000.00		30,000.00

**Specification:**



broad-spectrum serine protease, molecular biology grade						
30	<b>RNase A</b>	kit	1	30,000.00		30,000.00
<b>Specification:</b> <ul style="list-style-type: none"> <li>• <b>Catalog No.:</b> PC0713-500mg</li> <li>• <b>Pack Size:</b> 500 mg</li> <li>• <b>Appearance:</b> White lyophilized powder; chromatographically purified</li> <li>• <b>Molecular Mass:</b> 13.7 kDa (Amino Acid Sequence)</li> <li>• <b>Extinction Coefficient:</b> E 1% = 7.1% (280 nm)</li> <li>• <b>Isoelectric Point:</b> pI 9.6</li> <li>• <b>Optimum Temperature:</b> 60°C</li> <li>• <b>Optimum pH:</b> 7.5</li> <li>• <b>Inhibitors:</b> Ribonuclease inhibitor</li> <li>• <b>Activity (Kunitz):</b> ? 60 units/mg protein</li> <li>• <b>Certified Free Of:</b> DNases, RNases, phosphatases, and nickases</li> </ul>						
31	<b>Taq Mastermix, 200 x 50ul reactions</b>	kit	2	27,800.00		55,600.00
<b>Specification:</b> <p>mastermix only requires the addition of template, primers and water; contains a red dye that increases the visual contrast between the reagent and the reaction vessel</p>						
32	<b>Cooler, 26 liters, wheeled</b>	unit	2	4,500.00		9,000.00
<b>Specification:</b> <ul style="list-style-type: none"> <li>• <b>Material:</b> Polyethylene, Polypropylene, Urethane foam</li> <li>• <b>Capacity:</b> Approx. 26L</li> <li>• <b>Weight:</b> Approx. 3.3 kg</li> <li>• <b>BPA Free</b></li> <li>• <b>Easy draining:</b> Rustproof, leak-resistant channel drain for non-tilt draining</li> <li>• <b>Reversible hinged lid</b></li> <li>• <b>Easy to carry</b> with a long handle</li> <li>• <b>Large heavy duty wheels</b></li> </ul>						
33	<b>TBE Buffer, 10x</b>	btl	1	14,000.00		14,000.00
34	<b>Sodium Acetate (NaOAc)</b>	btls	1	7,000.00		7,000.00
<b>Specification:</b> <ul style="list-style-type: none"> <li>• <b>Quantity:</b> 500g per bottle</li> <li>• <b>Purity:</b> 99%</li> <li>• <b>Grade:</b> Lab Grade</li> </ul>						
35	<b>Sodium chlorite, technical grade 80%, 100g</b>	btl	2	7,000.00		14,000.00
36	<b>Benchtop Cooling Block</b>	piece	4	3,000.00		12,000.00
<b>Specification:</b> <ol style="list-style-type: none"> <li>1. Polycarbonate construction with rubber non-slip feet</li> <li>2. Number of wells: 12</li> <li>3. Tube sizes fit: 0.5-2.0 ml</li> </ol>						

4. Temperature: -20 C 5. Temp retention: -15 C for 1 hr 6. Dimensions: 5.7 x 4.1 x 3.9 in (14.5 x 10.5 x 10 cm) 7. Color: Any						
37	Plant DNA Extraction Kit	kit	2	40,000.00		80,000.00
<b>Specification:</b> <ul style="list-style-type: none"> <li>• <b>Type:</b> DNeasy Plant Mini Kit</li> <li>• <b>Reactions:</b> 50 reactions</li> <li>• <b>Contents:</b> <ul style="list-style-type: none"> <li>◦ 50 DNeasy Mini Spin Columns</li> <li>◦ 50 QIAshredder Mini Spin Columns</li> <li>◦ RNase A</li> <li>◦ Buffers</li> <li>◦ Collection Tubes (2 mL)</li> </ul> </li> </ul>						
38	Isoamyl Alcohol	btl	2	4,000.00		8,000.00
<b>Specification:</b> <ul style="list-style-type: none"> <li>• <b>Grade:</b> Molecular/Laboratory Grade</li> <li>• <b>Volume:</b> 500 mL</li> </ul>						
39	PCR Workup rack, PP 96 well PCR plates	pack	3	4,000.00		12,000.00
<b>Specification:</b> <p>96 place for individual PCR tube, 12 x 8-well PCR strips</p> <p>25 plates/pack</p>						
40	Acrylamide/Bis-acrylamide solution 30% (29:1)	500ml/bot	1	10,000.00		10,000.00
<b>Specification:</b> <p>Composition:</p> <p>Acrylamide/Bis-acrylamide Solution 30% (29:1) solution is prepared from highly pure nuclease free electrophoresis grade acrylamide and bis-acrylamide in ultrapure water and finally filtered through a 0.2 µm filter. Properties: Appearance Clarity DNase &amp; RNase Sterility Suitability test</p> <p>Storage conditions:</p> <p>Appearance: Colorless solution</p> <p>Clarity: Clear and free of particles</p> <p>DNase and RNase: None detected No bacterial or fungal growth is observed after 14 days of incubation</p> <p>Suitability test: This solution has been tested and is suitable for use in PAGE.</p> <p>Storage Conditions:</p>						



Acrylamide/Bis-acrylamide Solution 30% (29:1) has to be stored at 2 - 8 °C and should be protected from light. Under recommended condition, the reagent is stable for 12 months.

41	<b>EZ Load 1kB Molecular Ruler</b>	tube	2	18,000.00		36,000.00
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**Specification:**

500 uL, 0.08g/uL, ready-to-load DNA standard, 1-15 kB, 15 bands, includes 1mL 5x nucleic acid sample buffer, 100 applications

**JUSTIFICATION:**

This molecular ruler has a pre-diluted format that ensures consistent and precise loading, eliminating the need for additional dilution compared to other molecular ruler. With its high resolution and user-friendly design, the ladder is perfect for routine molecular biology experiments, especially in RNA extraction. Investing in the EZ Load 1kB Molecular Ruler improves experimental efficiency and guarantees accurate results in gel electrophoresis.

42	<b>EZ Load 100 bp Molecular Ruler</b>	tube	3	8,850.00		26,550.00
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**Specification:**

500 uL, 0.05 ug/uL, ready to load DNA standard, 100 - 1000 bp, 10 bands, includes 1 mL x 5x nucleic acid sample buffer, 100 applications

**JUSTIFICATION**

A 100 bp DNA ladder will be used as a size standard to determine the size of DNA fragments after polyacrylamide gel electrophoresis. The expected band size of our PCR products is approximately 100 to 300 bp for our SSR markers. Therefore, the 100 bp DNA ladder is appropriate for our analysis.

**Key Features:**

**Preblended with Loading Buffer:** The ladder is pre-mixed with a sample loading buffer, eliminating the need for additional preparation steps.

**Accurate Size Markers:** It contains 10 distinct bands in 100 bp increments, providing clear and reliable size markers for DNA analysis.

**High-Quality DNA:** The DNA fragments are of high purity, ensuring consistent and reproducible results.

**Convenient Storage:** The product is supplied in a glycerol-based solution, allowing for storage at 4°C without the need for freezing.

**Other features for application:**

**Electrophoresis Conditions:** For optimal resolution of DNA fragments, use a 1% agarose gel for fragments larger than 500 bp. For fragments smaller than 500 bp, a 3% agarose gel is recommended.

**Alternative Gel Types:** Polymerase chain reaction (PCR) products can also be analyzed using this molecular ruler. In such cases, polyacrylamide gels with a concentration of 5% are suitable.

**Storage:** Store the molecular ruler at 4°C to maintain its stability and effectiveness.

**PROTOCOL for Polyacrylamide Gel Electrophoresis (PAGE) for Sweetpotato Genotyping:**

**Key Features:**



**Preblended with Loading Buffer:** The ladder is pre-mixed with a sample loading buffer, eliminating the need for additional preparation steps.

**Accurate Size Markers:** It contains 10 distinct bands in 100 bp increments, providing clear and reliable size markers for DNA analysis.

**High-Quality DNA:** The DNA fragments are of high purity, ensuring consistent and reproducible results.

**Convenient Storage:** The product is supplied in a glycerol-based solution, allowing for storage at 4°C without the need for freezing.

**Other features for application:**

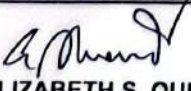
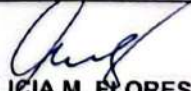
**Electrophoresis Conditions:** For optimal resolution of DNA fragments, use a 1% agarose gel for fragments larger than 500 bp. For fragments smaller than 500 bp, a 3% agarose gel is recommended.

**Alternative Gel Types:** Polymerase chain reaction (PCR) products can also be analyzed using this molecular ruler. In such cases, polyacrylamide gels with a concentration of 5% are suitable.

**Storage:** Store the molecular ruler at 4°C to maintain its stability and effectiveness.

**PROTOCOL FOR POLYACRYLAMIDE GEL ELECTROPHORESIS FOR SWEETPOTATO GENOTYPING**

1. Prepare the gel: Prepare a polyacrylamide gel with an appropriate percentage for the expected size range of your DNA fragments (e.g., 5-12% for 100-1000 bp). 2. Prepare the ladder: Ladders come with loading dye already included, allowing the ladder to be loaded directly into the well. 3. Load the samples: Load the DNA ladder into a well on the gel. Typically, one well is used for the ladder, and other wells are used for the DNA samples being analyzed. 4. Run the gel: Connect the gel to a power supply and run the electrophoresis according to the established protocol. The voltage and running time will depend on the gel percentage and the desired resolution. 5. Visualize the results: After electrophoresis, the DNA bands can be visualized using a DNA stain (e.g., ethidium bromide, SYBR Green) and a UV transilluminator or gel imaging system. 6. Analyze the results: Compare the migration distance of the unknown DNA fragments to the known sizes of the 100 bp ladder fragments.

43	Ethylene Glycol- Molecular Biology Grade	L	1	10,000.00		10,000.00
<b>Specification:</b>						
Molecular Biology grade						
Suitable for cryogenic preservation of plant tissue.						
Fast acting cryoprotectant						
Rapid water replacement						
Prevents ice or frost formation						
<b>TOTAL</b>						<b>691,354.00</b>
Purpose: DNA Extraction And PAGE						
Checked by:  <b>ELIZABETH S. QUEVEDO</b>				Funds Available:  <b>ALICIA M. FLORES</b> <i>CH. M006</i>		
TWG - Laboratory Supplies				HEAD, BUDGET OFFICE		

Signature:	Prepared by:	Noted by:	Approved by:
	JOHN S. BAHANDI	JOY C. CODOG	PROSE IVY G. YEPES
Printed Name:		UNIT HEAD, PROJECT LEADER	PRESIDENT, VSU
Designation:			