DNA Extraction Protocol Using A OPS Diagnostics Synergy Plant 2.0 Kit For With Modifications For Marine Algae

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Materials Need:

- Plant Homogenization Buffer
- Homogenization Tubes
- RNase A
- Silica Spin Columns
- Microcentrifuge Tubes
- Isopropanol
- 70% Ethanol
- TE Buffer
- 1.5 M NaCl Solution

Protocol:

- Add up to 50mg of washed and dried tissue samples to the homogenization tube. Add up to 500ul of Plant Homogenization Buffer, and 500ul of 1.5M NaCl Solution to the homogenization tube.
- Bead beat homogenization tube for 2min and 30 seconds at the highest speed.
- Centrifuge at 10,000g for 5 min.
- Transfer up to 500ul of supernatant to a clean centrifuge tube.
- Add 5ul of RNase A, let sit at room temperature for 15 min
- Add 7/10 volume Isopropanol to the centrifuge tube, let sit at room temperature for 5 min then place in the freezer at -20C for 5 min.
- If only used for analysis you can skip to the cleaning step. If being used for NGS or other downstream applications, continue with spin column steps.
- Transfer solution to Spin Column, centrifuge for 5 min at 10,000g for 1 min.
- Discard flow, add 200ul of Ice cold ethanol, and centrifuge at 10,000g for 2 min.
- Repeat above step
- Transfer column to a clean tube, add 50-100ul of TE buffer, let sit for 5-10 min to allow for DNA to dissolve.
- Store at -20 to -80 C for long term storage.