

GeNei™ Plant Mitochondrial DNA Isolation Teaching Kit

Description: Plant Mitochondrial DNA (mtDNA) is DNA that is located in mitochondria. This is in contrast to most DNA of eukaryotic organisms, which is found in the nucleus. Nuclear and mtDNA are thought to be of separate evolutionary origin, with the mtDNA being derived from bacteria that were engulfed by early precursors of eukaryotic cells. In mammals, 100% of the mtDNA contribution to a zygote is inherited from the mother and this is true for most, but not all, organisms. Mitochondrial DNA (mtDNA) plays a role in respiration and the cell's energy conversion mechanism. It is also used in human applications for DNA fingerprinting.

The Plant Mitochondrial DNA Isolation Teaching Kit will enable the user to isolate the organelle DNA from plant tissues with a much simpler method than the traditional isolation techniques.

Note: Using this kit students will isolate Plant Mitochondrial DNA and carryout PCR with primers specific for Mitochondrial genes.

The kit provides materials sufficient for 5 experiments

Ordering Information:

Product	Size	Cat #
GeNei™ Plant Mitochondrial DNA Isolation Teaching Kit (Consumables for 5 experiments)	1 Pack	116654

Materials Provided:

- Buffer Mt-1
- Buffer Mt-2
- Buffer Mt-3
- Columns
- DNase I
- BSA
- Nuclease free water
- 100 bp DNA Ladder
- Gel loading buffer
- Agarose
- Mineral oil
- 50X TAE
- PCR Tubes
- Taq DNA Polymerase
- 10X Assay Buffer
- dNTP Mix
- Primer 1
- Primer 2
- Instruction manual

Note: Electrophoresis system (New Cat # 107070) and Thermal Cycler are required for the experiments. Not provided in this kit.

Note: UV transilluminator and EtBr are required.