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Single cell plant protoplast research without constraints

The Nadia instrument exhibits unprecedented sample type and size compatibility, allowing it to provide high-throughput single cell microfluidic solutions for plant research.

With the unrivalled versatility of the Nadia Innovate, encapsulation of single protoplasts can be performed in specialised plant buffers for exceptional data yield.

Single cell research unconstrained by buffer composition

Maintain plant cell viability throughout microfluidic capture using protoplast-optimised buffers.

Reliable protoplast encapsulation in both high viscosity and high osmolarity WI and W5 buffers.

High viscosity
Up to 0.6 M mannitol

High osmolarity
High density of crowding agents

Arabidopsis leaf protoplast in W5 buffer

Optimised cell capture maintained by precision pressure control

Single cell resolution without size exclusion

Ensure unbiased encapsulation on the Nadia Instrument.

Plant leaves have a wider variability in cell sizes than most other tissues, ranging from ~10 to 60 µm.

Cell size disparity
Cell types up to 60 µm in diameter

Encapsulated Marchantia leaf protoplasts

The microfluidic junction design of the Nadia Instrument allows for uninhibited capture of protoplasts up to 60 µm.

Utilise the unrivalled versatility of Nadia Innovate for truly optimised plant single cell encapsulation

For more information about our upcoming application note please contact applications@dolomite-bio.com