in vitro technologies

Comprehensive Tools for Advanced Plant Research

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1 Sample Collection & Preparation

2D-coded Cryovials, Barcode readers and Sample Management Systems

The most secure, traceable, and contamination-resistant solution for high-throughput plant sample biobanking and molecular workflows.

2 Nucleic Acid & Protein Extraction

Next generation of extraction – the faster path from sample to result.

The next-generation nucleic acid extraction solution for fast, reliable and efficient DNA or RNA purification in <20 minutes.

Plant Protein Purification Solutions

High-throughput, gentle protein purification tools ideal for recombinant proteins from complex plant tissues.

Chromatography Resins for Plant Protein Purification

Versatile chromatography resins for purifying recombinant proteins, antibodies, and enzymes from complex plant extracts.

3 Genomic & Transcriptomic Analysis

genesig® qPCR Kits for Plant Analysis

Ready-to-use genesig® qPCR kits for sensitive plant pathogen, contamination, and GMO detection.

Visualize Gene Expression Directly in Plant Tissues

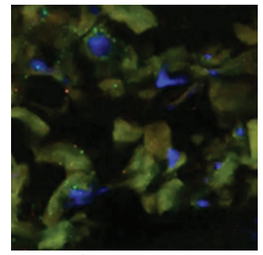
Enable high-resolution visualisation of gene expression directly within plant tissues.

Certified Reference Controls for Plant Testing

Reliable DNA and RNA controls for validating extraction efficiency, assay performance, and data accuracy.

Quality-Control Microbial Strains for Plant Pathogen Testing

Well-characterised microbial strains control for PCR, qPCR, and sequencing workflows.



Multiplex detection of target mRNA expression on barley leaf section
Image courtesy of Dr. Shyam Solanki

4 Cellular & Tissue-level Analysis

Standard Fungal Models for Plant Disease Research

Standardised fungal and oomycete models to study plant disease mechanisms and resistance strategies.

Spatial mapping tools to pinpoint gene activity in plant tissues.

Spatial mapping tools showing gene activity in plant tissues, aiding studies of development, disease, and stress responses at cellular level.

Gentle and rapid plant sorting and dispensing

Gently sort and dispense plant protoplasts to select for regenerating protoplast populations.

5 Bioprocessing & Scale up Solutions

Accelerating Plant Research at scale.

Flexible bioprocessing and scale-up solutions for plant, microbial, and cell culture workflows — supporting growth from discovery to production.

6 Plant Physiology & Metabolic Analysis

Unlock real-time plant bioenergetics with Seahorse XF technology

Measure mitochondrial respiration and glycolysis in live tissues or isolated organelles with precision.

Assess proteins involved in crop bioenergy in just 3 hours.

Simple Western automates plant protein separation and quantification with built-in total protein normalization in a compact benchtop system.

ELISAs for plant hormone and vitamin profiling

Measure Rubisco, Abscisic Acid and Vitamin A in plant tissues with Novus Biologicals pre-validated and optimised ELISAs.

7 Functional Assays

Genome-editing tools for precise gene modification of plants

Genome-editing tools enable precise plant or microbial gene modifications to study function, boost resistance, and enhance productivity.

Reporter cell lines and Pathogen strains

Reporter systems and defined pathogen strains enable testing of plant defences, treatments, and infection models.

8 Data Analysis & Bioinformatics

Transform plant 'omics into biological insight with QIAGEN IPA

Powerful pathway and network analysis to accelerate discovery from transcriptomics, proteomics, and metabolomics.

9 Biobanking & Long-term storage

2D-coded Cryovials, Barcode readers and Sample Management Systems

The most secure, traceable, and contamination-resistant solution for high-throughput plant sample biobanking and molecular workflows.

Cryogenic Tanks for Plant Sample Storage

Cryogenic LN2 tanks for ultra-low temperature storage of plant and biological research samples.

Partner for Your Advanced Plant Research Success

Empowering plant science from discovery to application with tools you can trust and expertise you can rely on.

Together, we help turn innovative research into meaningful, real-world impact.

Scan to see our AgriBio resources

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