

The ExPERT DTx™ delivers virtually any molecule, into any cell, for research and discovery applications and high-throughput screening.

Bring the power of MaxCyte electroporation to accelerate your next discovery.



The ExPERT DTx empowers you to transfect primary cells and cell lines with minimal perturbation delivering reproducible, high transfection efficiency and cell viability.

Streamline workflow optimization. Process up to 96 samples in a single, 3-minute run with consistent well-to-well performance that eliminates transfection as an experimental variable.

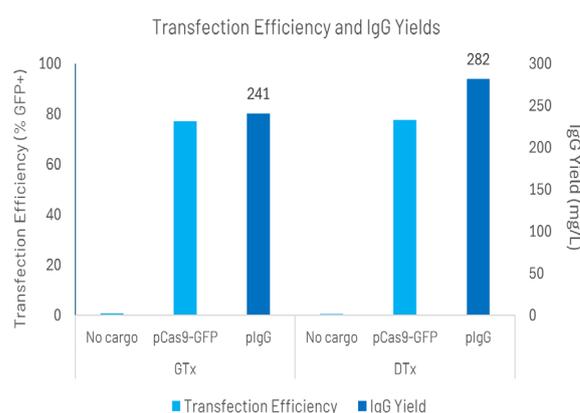
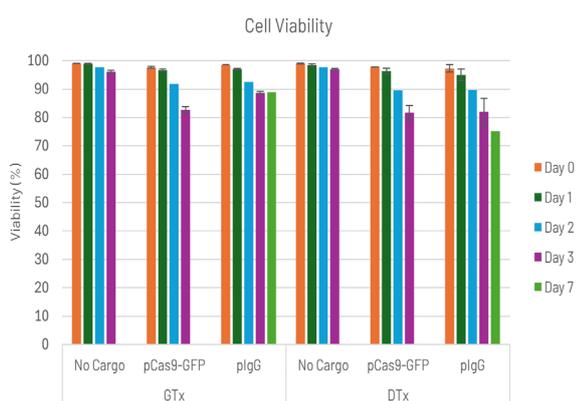
Scale from discovery to manufacturing. Transfer your optimized process to other ExPERT™ instruments for scale-up and cGMP-compliant manufacturing without reoptimization.

Cost-effective screening. The R-50x96™ processing assembly offers the lowest cost-per-well for 96-well electroporation. Independent strip control maximizes flexibility and minimizes waste.

Optimize electroporation parameters. Precise fine-tuning to identify the best conditions for your unique cell and cargo combination.

High cell viability. High cell health and maximum recovery so you get the most from each experiment.

The DTx™ enables reproducible, scalable transfection of CHO cells for IgG expression.



ExpiCHO cells were harvested and resuspended in MaxCyte electroporation buffer (2×10^8 cells/mL) with either 200 μ g/mL of pCas9-GFP plasmid or plgG plasmid, or no DNA (no cargo control). Cells (50 μ L per well) were electroporated in technical triplicate with the R-50x96 and the DTx or the R-50x8™ and the GTx™ using the pre-loaded CHO protocol. Following resting, cells were cultured in 24-well, deep well plates at 6×10^6 cells/mL in production media according to MaxCyte's transient protein production protocol. Cell viability, transfection efficiency (% of viable cells expressing GFP on day 2 post-electroporation), and IgG yields (day 7 post-electroporation) were determined.

The DTx is a modular electroporation instrument consisting of:

DTx Electroporation (EP) Module I generates the energy for electroporation

DTx Processing Assembly (PA) Module accommodates and delivers the charge to the PA

DTx Software controls and monitors the instrument

DTx Designer Software enables users to design an experiment remotely and upload it to the DTx

The DTx is compatible with:

R-50x96 Processing Assembly 12x8-well strips in a standard 96-well plate layout for high-throughput electroporation of up to 96 samples in a single, 3-minute run

MaxCyte Electroporation Buffer proprietary, GMP-manufactured buffer for gentle, yet highly efficient transfection of any cell type

ExPERT DTx Instrument Specifications

Item	Specification
DTx Electroporation Module Dimensions	19.6" (498 mm) x 12.6" (320 mm) x 10.7" (273 mm)
DTx Processing Assembly Module Dimensions	9.9" (252 mm) x 11.1" (282 mm) x 4.4" (111 mm)
DTx Instrument Weight (EP Module + PA Module)	47 lbs (21 kg)
DTx Input Power	100-240 VAC, 50-60 Hz, 240 W
Fuse Requirements	2 x 4 A Slow Blow, 250 V, 5 x 20 mm
Operating Humidity	80% max (non-condensing)
Operating Temperature	59° F - 86° F 15°C - 30°C
Storage Temperature	32°F - 113°F 0°C - 45°C
Modes of Operation	Static
Process Volumes	20 µL - 50 µL
Ports Available	3 USB / 1 Ethernet

Standards to which Conformity is Declared:

- IEC 61010-1. Safety requirements for electrical equipment for measurement, control, and laboratory use Part 1: General requirements. IEC 61010-1:2010, IEC 61010-1:2010/AMD1:2016
- EN 61326-1:2020. Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements
- EN61000-3-2:2018, Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)
- EN 61000-3-3:2013/AMD1:2017, Electromagnetic compatibility (EMC) - Part 3-1: Limits - Limitation of voltage changes, voltage fluctuations, and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection

CE Marking: Application of Council Directive(s) 2014/30/EC, 2014/35/EU, 2011/65/EU

