

Tech-Trends

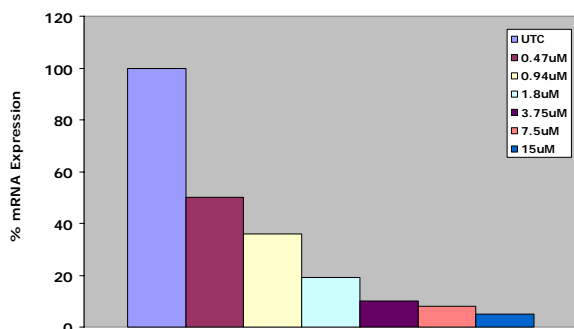
Volume 2, Series 1

High Throughput Electroporation of siRNA

Multi-well Electroporation for siRNA!

BTX, the leader in electroporation, has developed an innovative product line for Multi-Well Electroporation. The HT System boosts productivity by running multiple samples in seconds, increasing yields and viability. The key to the system are the BTX Multi-well electroporation plates. The HT Plates come in either a standard 96 well format or a 25 well (5 x 5) format.

Titration of siRNA for Peak Inhibition of mRNA Expression using the 96 Well High Throughput Electroporation System



ECM® 830 HT 25/96 Multi-Well PROTOCOL

Cell Line: Primary human PBL
Transfectant: In Vitro Transcribed RNA (GFP)
Protocol PR0688

Cell Preparation:

Human PBL's were stimulated with anti-OKT3 (30ng/ml) and IL-2 (50cu/ml) for three days, counted and washed 1 X in Opti-MEM. The cell pellet was re-suspended in Opti-MEM to a final cell density of 2.5 X 10⁷/ml

Electroporation Settings:

Choose Mode: LV
Set Voltage: 500 V
Electrode Gap: 4mm
Set Pulse Length: 800µsec
Set Number of Pulses: 1
Pulse Interval:
Electrode Type: multi-well plates 4mm gap desired
Field Strength: 1250volts/cm

Electroporation Procedure:

Volume: 200ul
RNA Amount: 10µg (2µg/106cell)
Temperature: Room temperature
Pulse: Press Automatic **Start** to activate Charge and Pulse Sequence
Post Pulse Treatment: Immediately following electroporation the cells were transferred to culture media
Results: 80-90% Cell Viability
90% of transgene expression
Reference: Beta Site: Yangbing Zhao, Phd MD, Surgery Branch of National Cancer Institute, NIH, Bethesda MD 20892