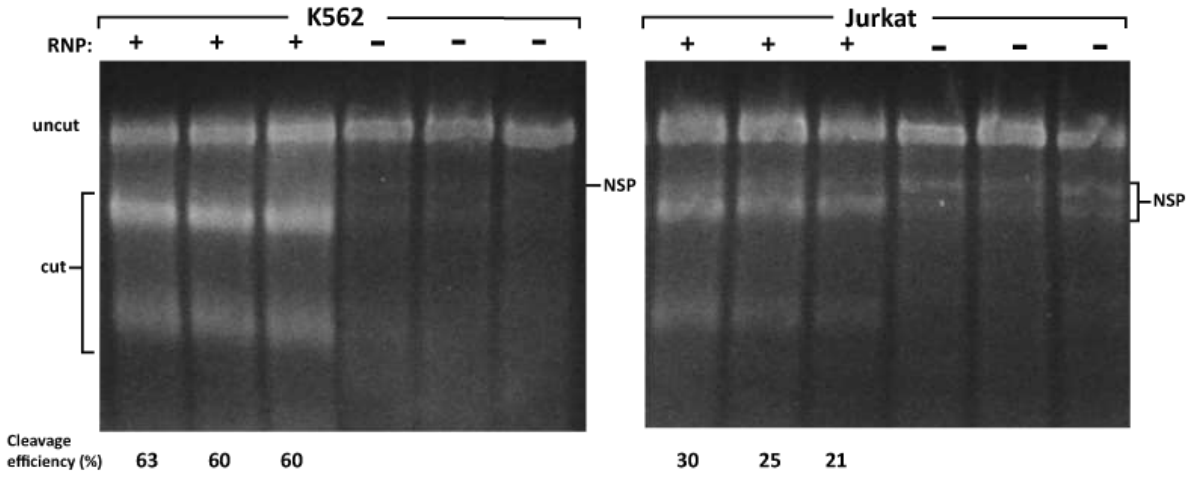
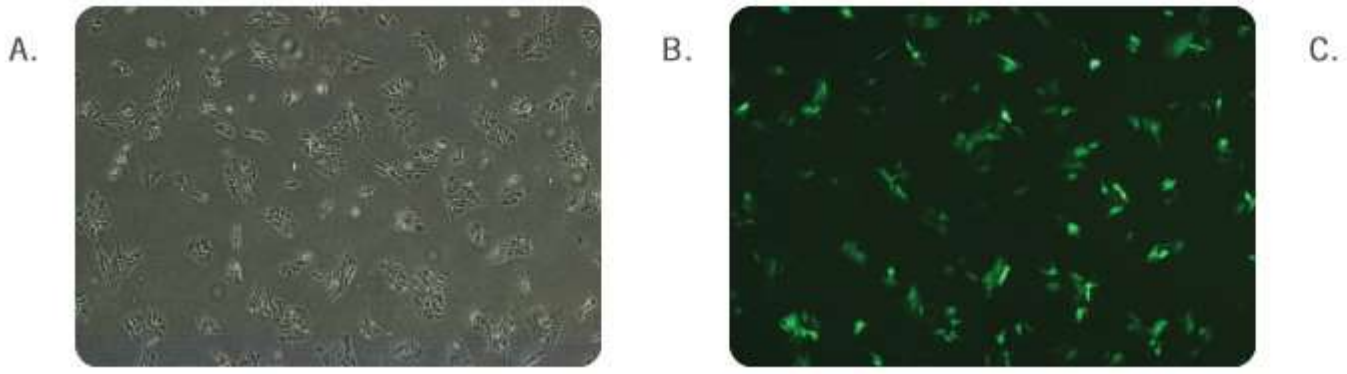
# Figures and Data





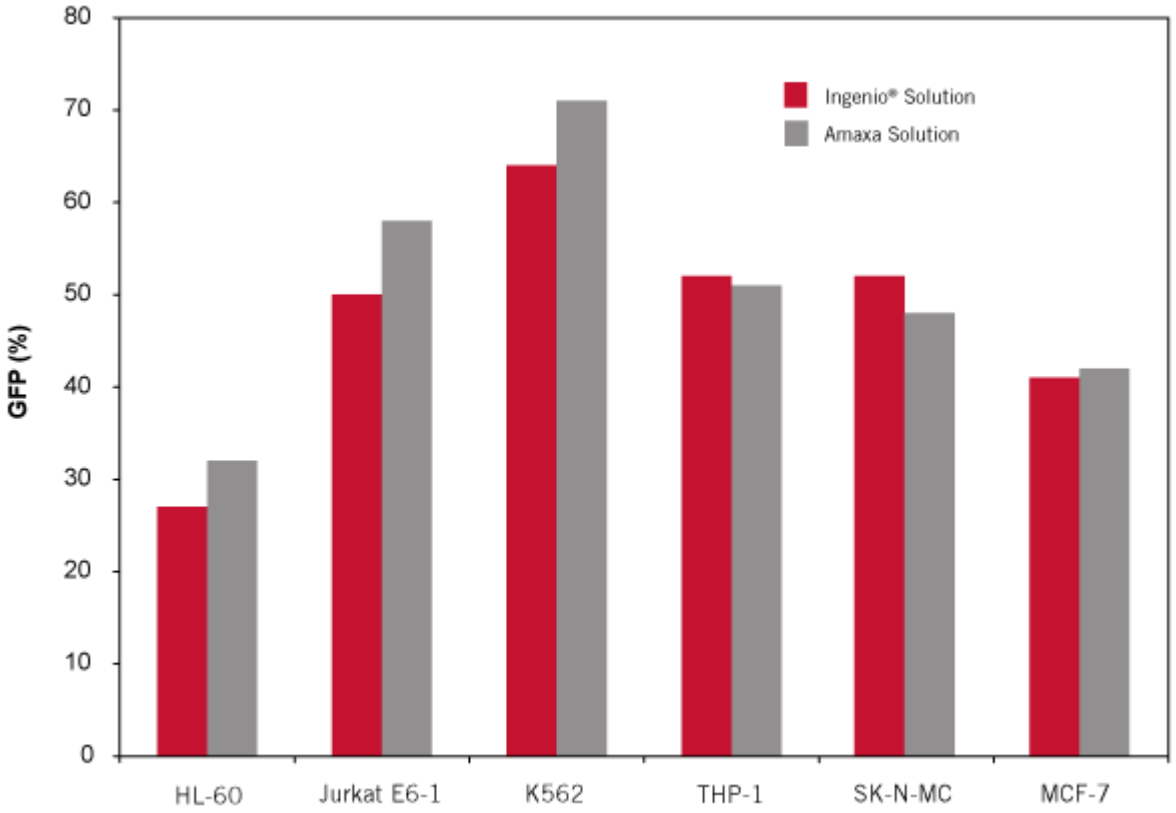

**CRISPR RNP Delivery with Ingenio® Electroporation Solution.** K562 and Jurkat cells were electroporated with a Cas9 protein/gRNA, ribonucleoprotein (RNP) complex, composed of 750 nM Cas9 protein (EnGen Cas9 NLS, NEB) and 1500 nM pre-complexed two-part gRNA (IDT) targeting PPIB using the Ingenio® Electroporation Solution and a Gene Pulser Xcell™ Eukaryotic System. Exponential pulse conditions of 130V, 950 µF for K562 and 150V, 950 µF for Jurkat cells were applied to triplicate 0.2 cm cuvettes, 100 µl volume, 10 x $10^6$ cells/ml +/- RNP complex. A T7E1 mismatch assay was used to measure cleavage efficiency at 48 hours post-transfection. Non-specific bands (NSP) were observed in the negative control of both cell lines. Cleavage efficiency was calculated based on the ratio of cleaved band intensities to the sum of cleaved and uncleaved band intensities minus the average signal of the non-specific band(s) in negative control lanes.



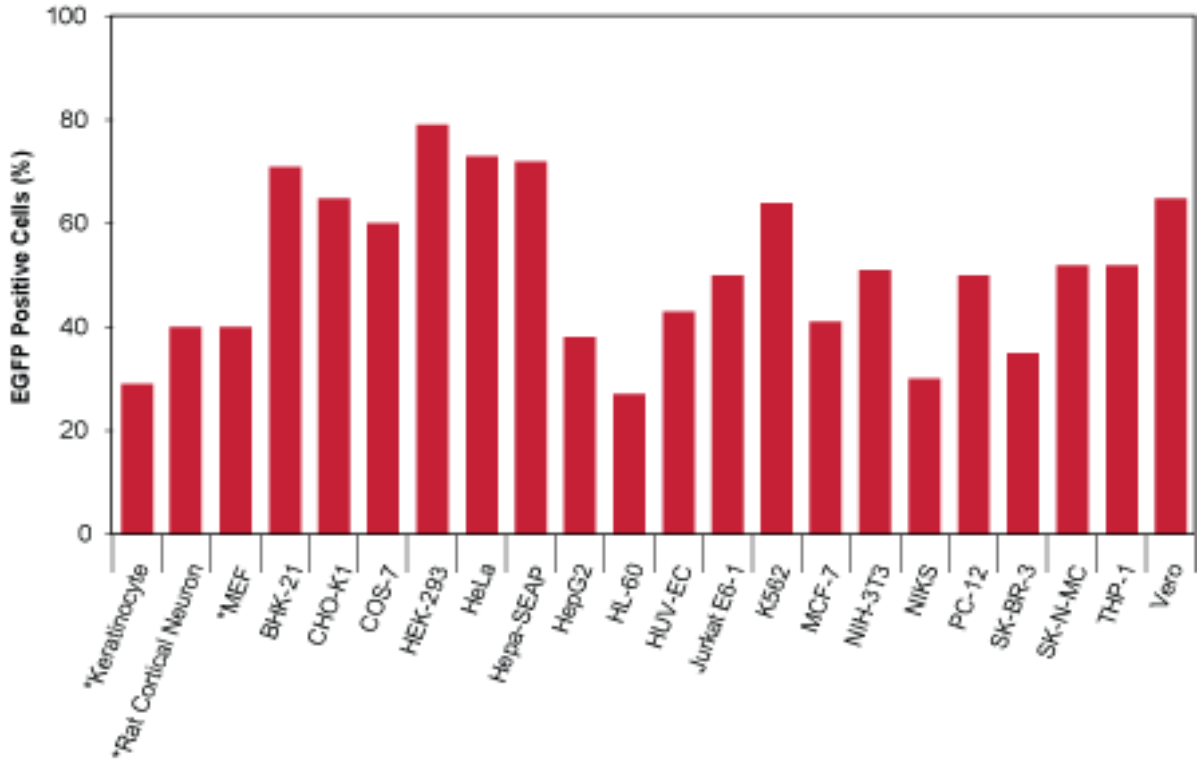

**High Efficiency Plasmid DNA Electroporation of Human Induced Pluripotent Stem (iPS) Cells Using Ingenio®.** The Ingenio® Electroporation Kit was used to transfect 2 x $10^6$ iPS cells on the Amaxa® Nucleofector® II Device. Cells were electroporated with 8 µg ZsGreen expressing plasmid (Clontech) in 100 µl and plated in 6-well plates at 0.33 x $10^6$ cells/well. Cells were visualized 24 hours post-transfection and imaged under 4X objective with an Olympus IX71® Inverted Microscope. Images are (A) phase contrast, and (B) green fluorescence. Cells were also assayed 24 hours post-transfection on an Accuri® Cytometer. The histogram (C) shows unelectroporated cells (black line) compared to cells electroporated with plasmid using the Ingenio® Electroporation Kit (green line). See more information on stem cell applications.

*Data courtesy of*

Cellular Dynamics International

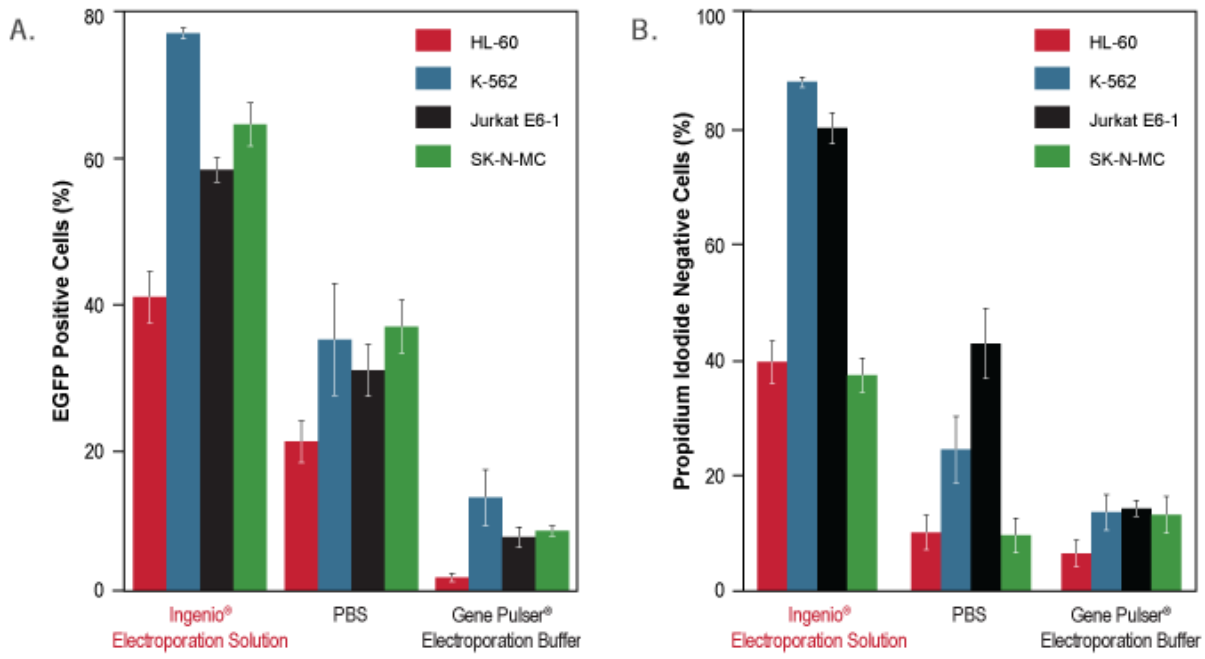



**Ingenio® Solution Provides Comparable Efficiency on Amaxa® Nucleofector® Device.** Cells were electroporated in parallel with an EGFP reporter vector using a Nucleofector® II Device (Amaxa®) and either the Ingenio® Electroporation Solution or the Nucleofector® Kit V (Amaxa®) according to Amaxa®'s recommended protocol for each cell line [HL-60 (T-019), Jurkat E6-1(X-001), K-562 (T-016), THP-1 (V-001), SK-N-MC (A-023), and MCF-7 (P020)]. EGFP expressing cells were identified 24 hours post-electroporation by flow cytometry and presented as a percentage of the live cell population.

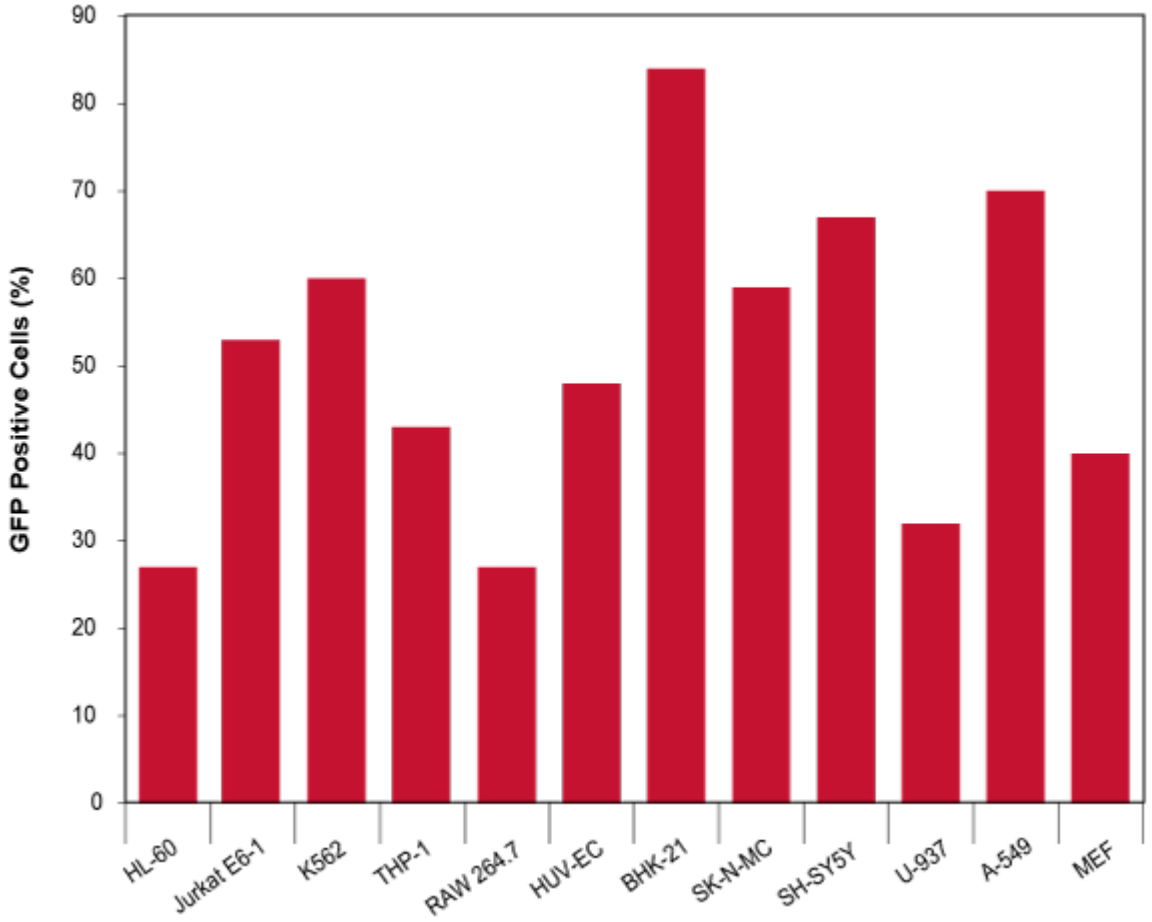



**Efficient Plasmid DNA Delivery Using Ingenio® Solution with Amaxa® Nucleofector® Device.** Ingenio® Electroporation Kits were used to transfect indicated cell types using Amaxa® Nucleofector® II Device. Cells were assayed at 24 hours by flow cytometry and reported as percentage of live cell population.

*Primary cell types




**Ingenio® Outperforms Other Electroporation Solutions in Efficiency and Viability.** Cells were electroporated in parallel with an EGFP reporter vector using either Ingenio® Electroporation Solution, PBS or the Gene Pulser Electroporation Buffer (Bio-Rad®) on the Gene Pulser Xcell™ Eukaryotic System. (A) EGFP expressing cells were identified 24 hours post-electroporation by flow cytometry and presented as a percentage of the live cell population. (B) Cells were assayed for viablility by propidium iodide staining and flow cytometry analysis. Experiments were performed in triplicate on three separate days and the data averaged.




**Using Standard Electroporators, Ingenio® Provides High Efficiency Electroporation of Hard to Transfect Cell Lines.** Cells were electroporated with an EGFP reporter vector using the Ingenio® Electroporation Solution and a Gene Pulser Xcell™ Eukaryotic System. EGFP expressing cells were identified 24 hours post-electroporation by flow cytometry and presented as a percentage of the live cell population.