

*Trans*IT®-2020 Reagent Exhibits Higher Expression and Lower Cellular Toxicity Compared to Other Transfection Reagents. Human umbilical vein endothelial cells (HUVEC) were transfected with a luciferase expression plasmid using the designated reagents at the reagent-to-DNA ratios indicated beneath each bar. Transfections were performed in 96-well plates using 0.1 µg of plasmid DNA per well. Luciferase expression (bar graph) and lactate dehydrogenase (LDH) levels (line graph) were measured at 24 hours post-transfection. LDH levels are reported as % cytotoxicity compared to cells alone and were measured using a commercially available colorimetric assay; all values at or below zero are represented as zero on graph. Error bars represent the standard deviation of triplicate wells.



High Performance Plasmid Transfection. Primary Human Small Epithelial Cells (HSAEpic) were transfected using *Trans*IT®-2020 and an EGFP expression plasmid (4:1 reagent-to-DNA ratio). Images were taken 24 hours post-transfection using a Zeiss axiovert inverted fluorescence microscope.



Superior Gene Expression in a Broad Spectrum of Cell Types. The indicated cell types were transfected in 96-well plates with a luciferase expression plasmid (0.1 µg/well) according to industry accepted testing protocols. Reagent to DNA ratios were optimized for each cell type: *Trans*IT®-2020 (Mirus Bio, 2:1 or 3:1), FuGENE® HD (Roche, 3.5:1), LipofectamineTM 2000 (Life Technologies, 1.5:1, 3:1 or 5:1). Luciferase activity was measured 24 hours post-transfection. Values were normalized to *Trans*IT®-2020 and presented as a percentage of luciferase expression. FuGENE® is a registered trademark of Fugent LLC. LipofectamineTM is a trademark of Life Technologies Corporation.