

Supplementary Material: The Efficiency of Gene Electrotransfer in Breast-Cancer Cell Lines Cultured on a Novel Collagen-Free 3D Scaffold

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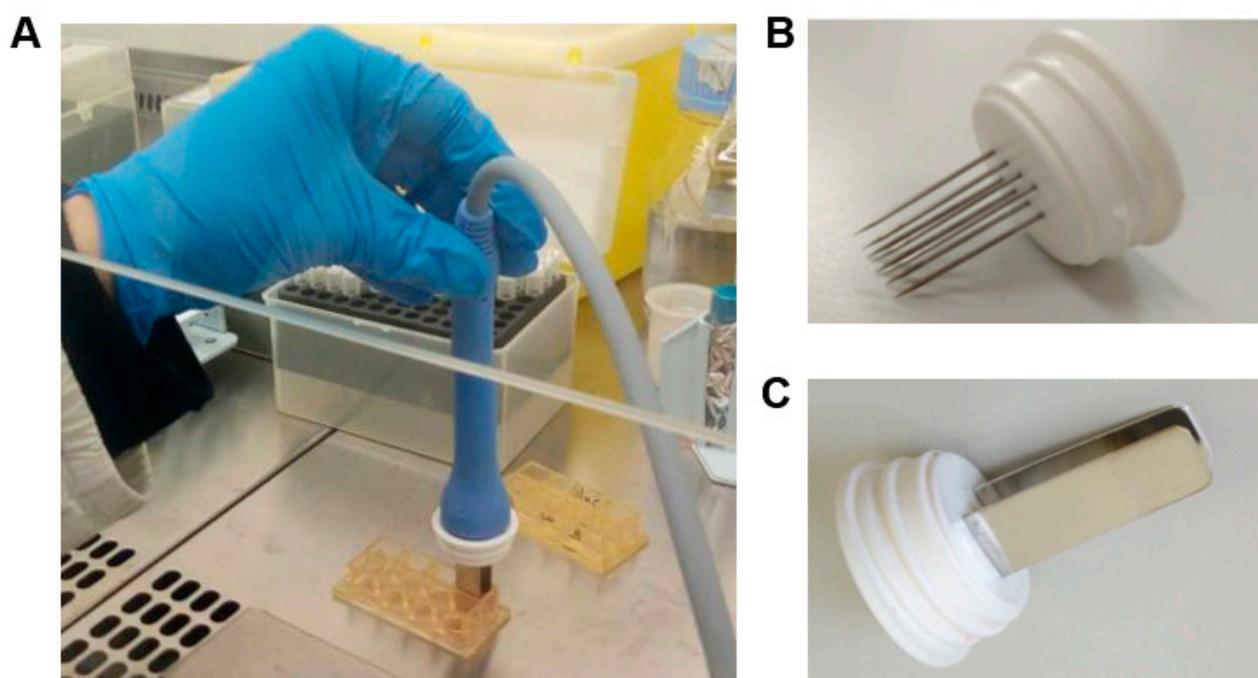


Figure S1. Representative images of electroporation procedure in 8-well chamber slides (A) using linear (B) or plate (C) electrodes.

Table S1. GET efficiency after two GET protocols in 2D and 3D cell cultures. Percentage of cell transfection of HCC1954 (A) and MDA-MB231 (B) cell lines in 2D and 3D cultures measured three days after EP (with a linear or plate electrode).

A		HCC1954	
	2D	3D	
GET protocol—Linear Electrode	20% ($\pm 2,47$)	12% ($\pm 2,60$)	$p < 0.01$
GET protocol—Plate Electrode	15% ($\pm 2,16$)	44% ($\pm 12,48$)	$p < 0.01$
	$p = \text{n.s.}$	$p < 0.0001$	
B		MDA-MB231	
	2D	3D	
GET protocol—Linear Electrode	13% ($\pm 1,02$)	11% ($\pm 4,32$)	$p = \text{n.s.}$
GET protocol—Plate Electrode	17% ($\pm 2,12$)	24% ($\pm 2,16$)	$p < 0.01$
	$p = \text{n.s.}$	$p < 0.01$	

Data are from two independent experiments and are displayed as Mean \pm SD. Statistically significant differences are calculated using Student's *t*-test. Abbreviations: n.s, not significant.

Table S2. Cell viability after two GET protocols in 2D and 3D cell cultures. Viability of HCC1954 (A) and MDA-MB231 (B) 2D and 3D cell culture after three days post-GET using linear or plate electrodes. Percentage viability obtained using PrestoBlue™ Cell Viability assay. Control: untreated cells.

A		HCC1954	
	2D	3D	
GET protocol—Linear Electrode	81% (\pm 4,13)	81% (\pm 8,34)	$p = \text{n.s.}$
GET protocol—Plate Electrode	53% (\pm 1,28)	66% (\pm 2,30)	$p = \text{n.s.}$
	$p < 0.0001$	$p < 0.01$	
B		MDA-MB231	
	2D	3D	
GET protocol—Linear Electrode	65% (\pm 0,87)	86% (\pm 10,60)	$p < 0.01$
GET protocol—Plate Electrode	63% (\pm 3,51)	96% (\pm 5,24)	$p < 0.0001$
	$p = \text{n.s.}$	$p = \text{n.s.}$	

Data are from quadruplicate biological repeats and are displayed as Mean \pm SD. Statistically significant differences are calculated using Student's *t*-test. Abbreviations: n.s, not significant.