

Effervescent Atomizer as Novel Cell Spray Technology to Decrease the Gas-to-Liquid Ratio

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Table S1. Percentage of positive ASCs (n=3) cells stained for eight mesenchymal stromal cell-characteristic marker of non-sprayed and sprayed with either gas-to-liquid ratio 2.5% or gas-to-liquid ratio 10% after 7 days of culture. Flow cytometric analysis shows that all experimental conditions fulfill the minimal criterion of Dominici et al. [16] regarding the surface marker expression.

	Percentage of Positive Cells					
	Mean ± SD (%)					
	Control		gas-to-liquid ratio 2.5%		gas-to-liquid ratio 10%	
Minimal Criterion is ≥95%						
CD90	99.57	±0.29	99.63	±0.23	99.70	±0.17
CD73	99.90	±0.00	98.47	±2.48	99.90	±0.00
CD105	99.97	±0.06	99.97	±0.06	99.97	±0.06
Minimal Criterion is ≤2%						
CD45	0.00	±0.00	0.00	±0.00	0.00	±0.00
CD34	0.02	±0.03	0.03	±0.05	0.04	±0.06
CD11b	0.00	±0.00	0.00	±0.00	0.00	±0.00
CD79α	0.09	±0.01	0.09	±0.04	0.08	±0.02
HLA-DR	0.01	±0.00	0.01	±0.01	0.03	±0.02

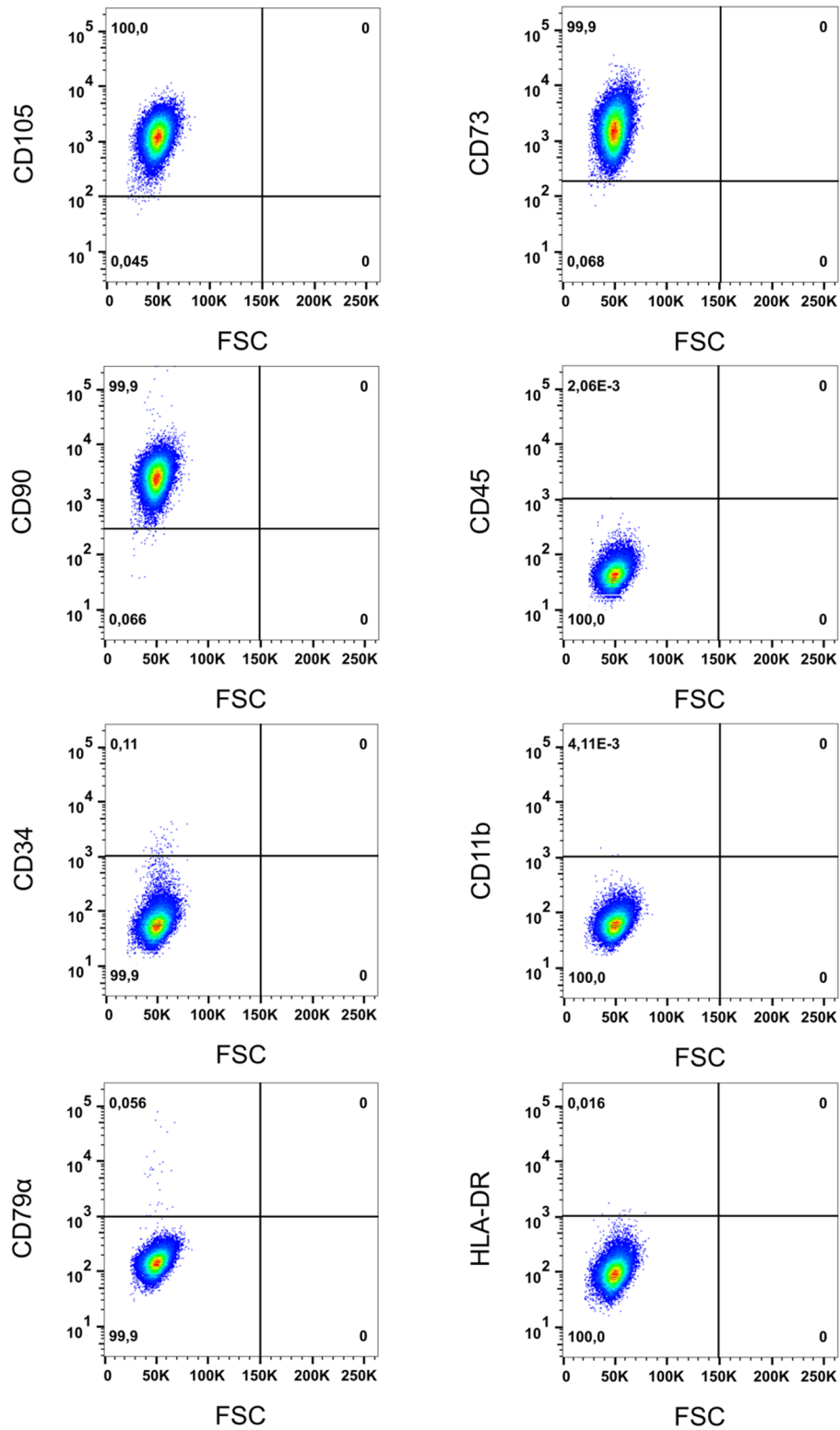


Figure S1. Dot plots of flow cytometry measurement (gas-to-liquid ratio 10%) for all examined cell surface markers. The x-axis of the dot plot shows the forward scatter value and the y-axis the intensity of the respective cell surface marker.

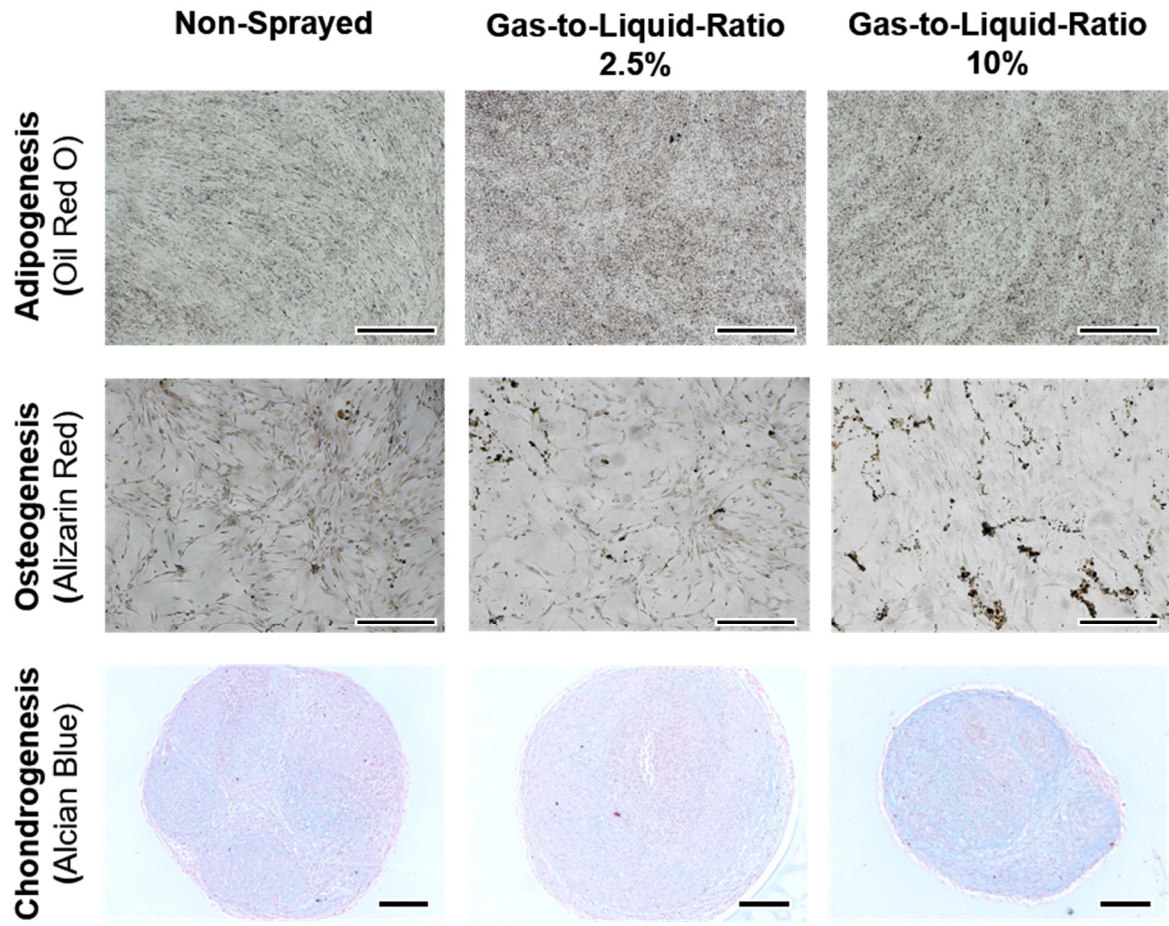


Figure S2. Non-sprayed and sprayed (gas-to-liquid ratio 2.5% and 10%) ASCs after culture with full growth medium and staining for adipocytes (top row), osteocytes (middle row, scale bars: 500 μ m) and chondrocytes (bottom row, scale bar: 200 μ m).