polymers

MDPI

Supplementary information

Enhanced Transfection of Human Mesenchymal Stem Cells Using Hyaluronic Acid/Calcium Phosphate Hybrid Gene Delivery System

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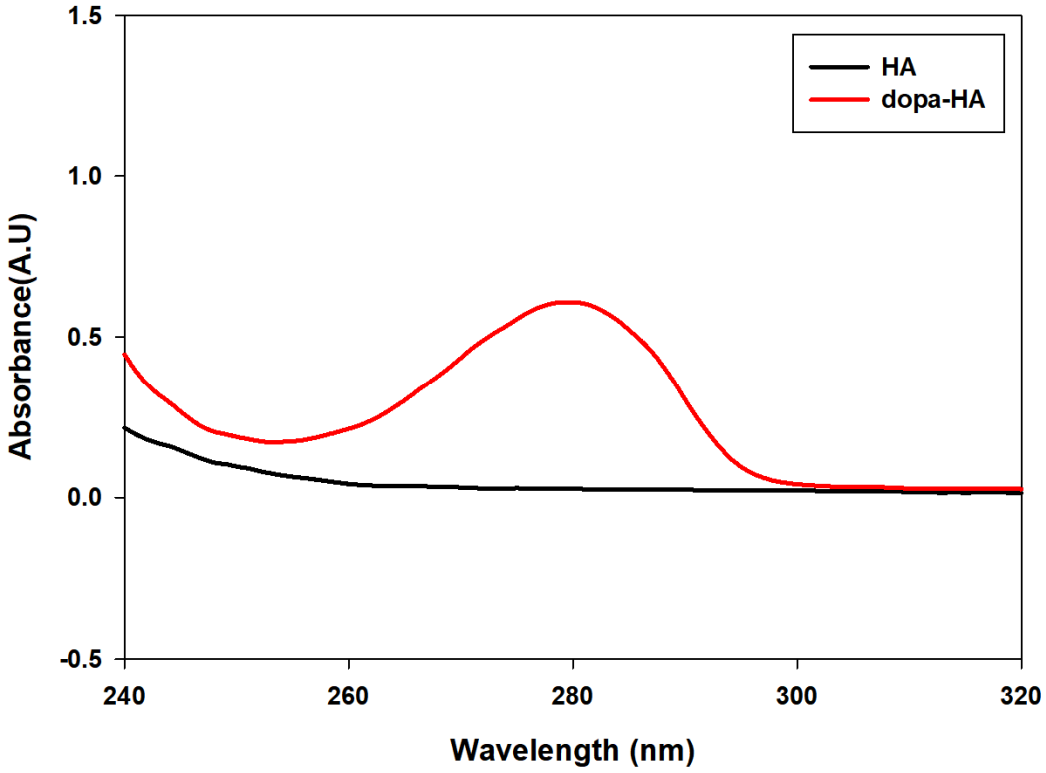

Figure 1. UV spectroscopy of HA and dopa-HA.

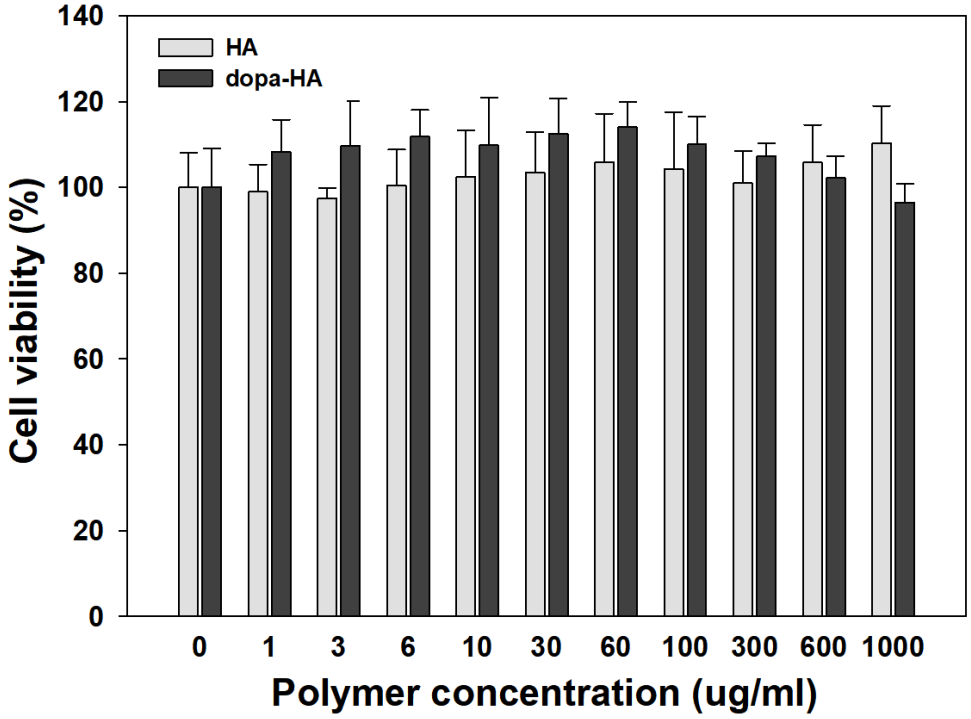

Figure 2. Cell viability of hMSCs after treatment of HA and dopa-HA at different concentrations.

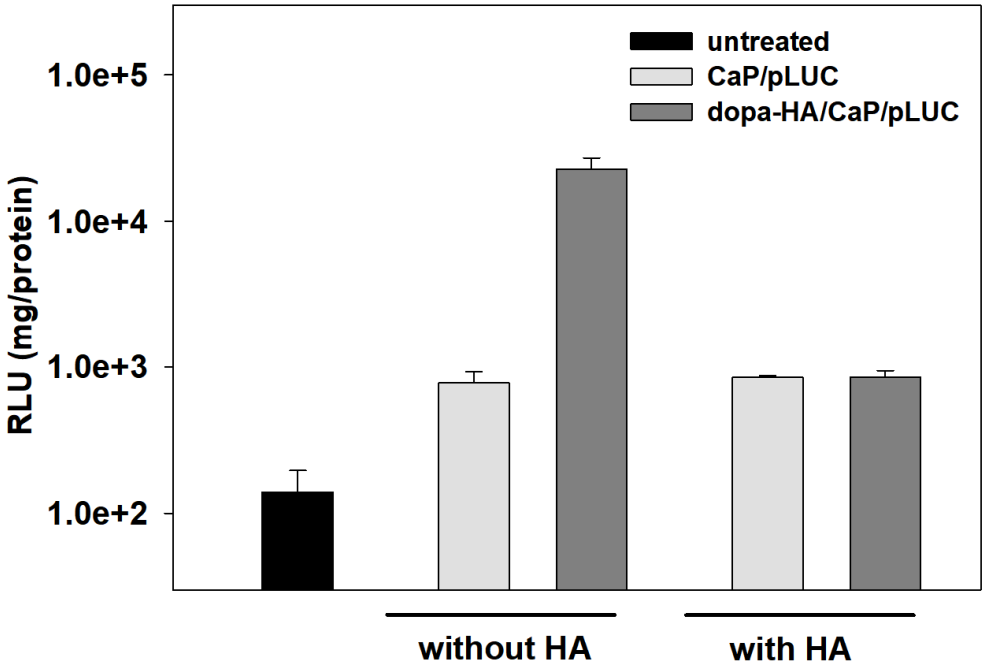

Figure S3. Gene transfection efficiency of dopa–HA/CaP/pLUC (w/w=2) in hMSCs either in the absence and presence of free HA. Values are given as the mean ± SD of triplicates.

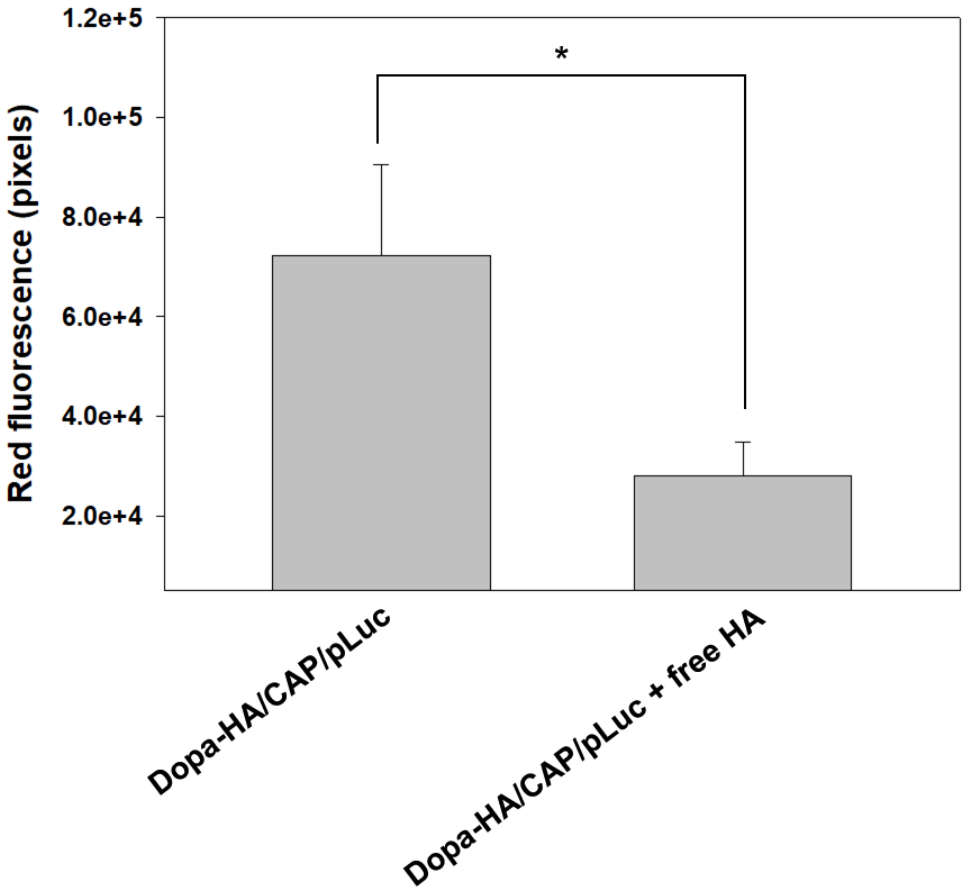

Figure S4. Comparison of the cellular uptake of CaP/pLuc and dopa–HA/CaP/pLuc (w/w= 2) in the absence and presence of free HA. Values are obtained from the confocal images in Figure 3C by measuring the red fluorescence signal intensity of the pixels using Image J software. * $p < 0.05$.

Table 1. Description of the primers for quantitative RT-PCR.

Lineage	Gene	Oligonucleotide primers
Bone	BMP2	5'-AGTTGCGGCTGCTCAGCATGTT
		5'-ACATGTCTCTTGGAGACACCT
	Noggin	5'-GAGGAAGTTACAGATGTGGCT
		5'-CACTCGGAAATGATGGGGTAC
	ALP (Alkaline phosphatase)	5'-ACATTCCCACGTCTTCACATTT
		5'-AGACATTCTCTCGTTCACCGCC
	OC (osteocalcin)	5'-ACCTTTGCTGGACTCTGCAC
		5'-TGAGAGCCCTCACACTCCTC
	ON (osteonectin)	5'-TTCCCTGTACACTGGCAGTTC
		5'-AATGCTCCATGGGGATGA
	OP (osteopontin)	5'-TTTCGCAGACCTGACATCC
		5'-GGCTGTCCCAATCAGAAGG
	β-actin	5'-CCAACCGCGAGAAGATGA
		5'-CCAGAGGCGTACAGGGATAG