

SUPPLEMENTARY MATERIAL

Cell-friendly chitosan-xanthan gum membranes incorporating hydroxyapatite designed for periodontal tissue regeneration

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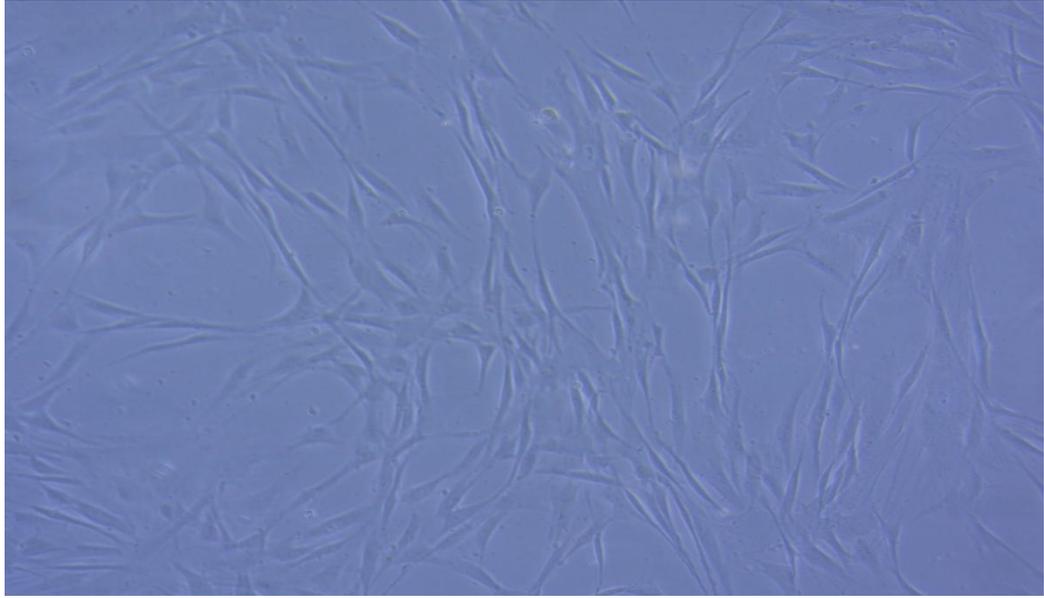


Figure S1 – Typical morphology of the DPSC cell line used in the *in vitro* assays observed by optical microscopy (10X objective).

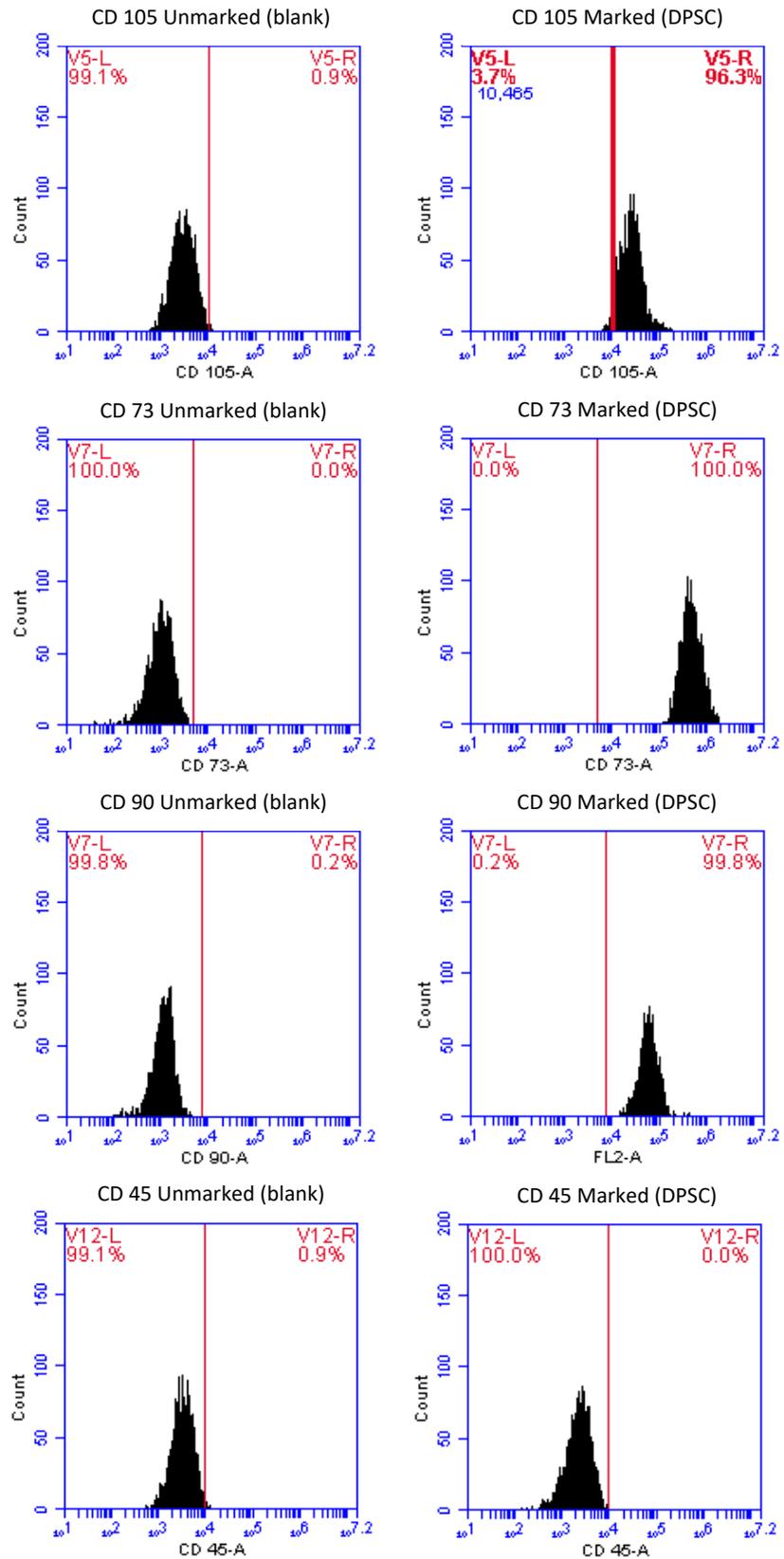


Figure S2 – Histograms obtained by immunophenotyping the DPSC analyzed by flow cytometry.

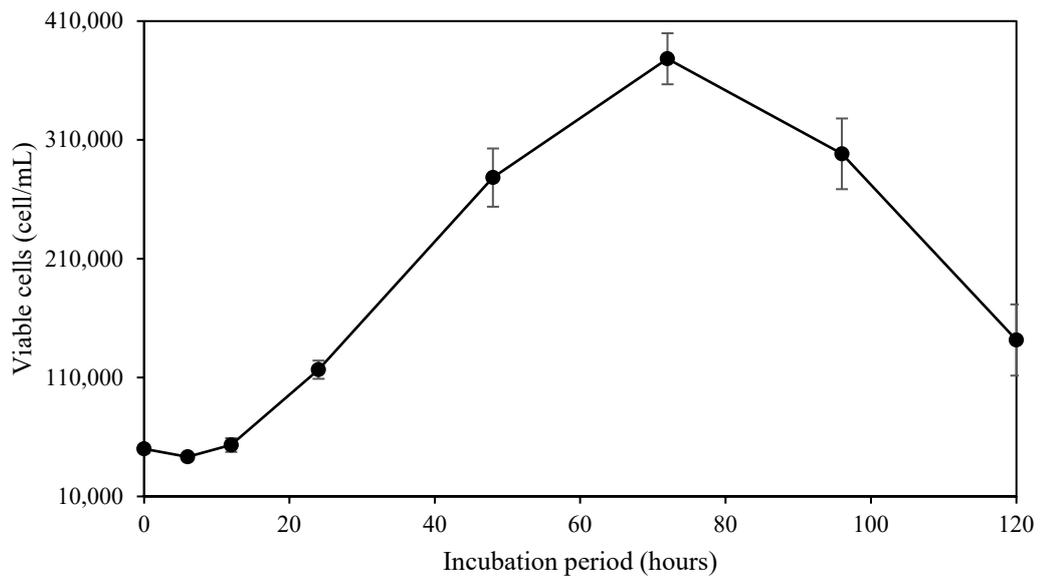


Figure S3 – Growth curve of the dental pulp mesenchymal cells obtained in *in vitro* culture using 6-well polystyrene plates, expressed in terms of the variation of viable cell concentration with time. The culture medium was changed every 72 h.

Table S1 – Values obtained from immunophenotyping markers by flow cytometry for the cell population in the 8th passage (BD – model: Accuri C6).

Immunophenotyping	Markers			
	CD 105	CD 90	CD 73	CD 45
Expression (%)	96.3	99.8	100.0	0.9

Table S2 – Absorbance of positive controls for MTT tests.

Time (h)	Absorbance at 560 nm
24	0.683 ± 0.06
48	1.017 ± 0.02
72	0.8517 ± 0.01

Table S3 – Percentage of cells which proliferate on the surface of the culture plate, in the neighborhood of membranes exposing Side 1, when compared to control cell culture experiments.

Time (h)	Cell proliferation on the neighborhood of membranes – Side 1 (%)			
	C ₁ X ₁ HA ₀	C ₁ X ₁ HA _{0.4}	C ₁ X ₁ HA ₂	C ₁ X ₁ HA ₁₀
24	62.44 ± 5.21 ^{a,A}	42.16 ± 8.11 ^{b,A}	28.23 ± 3.36 ^{c,A}	13.99 ± 1.19 ^{d,A}
48	22.33 ± 5.59 ^{a,B}	42.16 ± 5.31 ^{b,A}	39.69 ± 2.20 ^{b,A}	18.09 ± 7.94 ^{a,A}
72	53.36 ± 11.30 ^{a,A}	74.46 ± 2.93 ^{a,B}	55.30 ± 7.90 ^{a,B}	20.55 ± 9.75 ^{b,A}

Different lowercase letters in the same line and different capital letters in the same column indicate a significant difference between the mean values (Tukey's test, $p < 0.05$). *Percentage values consider optic density at 560 nm between the 0.000 - 1.000 range.

Table S4 – Percentage of cells which proliferate on the surface of the culture plate in the neighborhood of membranes exposing Side 2, when compared to control cell culture experiments.

Time (h)	Cell proliferation on the neighborhood of membranes – Side 2 (%)			
	C ₁ X ₁ HA ₀	C ₁ X ₁ HA _{0.4}	C ₁ X ₁ HA ₂	C ₁ X ₁ HA ₁₀
24	58.68 ± 10.39 ^{a,A}	48.21 ± 7.38 ^{a,b,A}	33.38 ± 6.41 ^{b,A}	10.22 ± 2.60 ^{c,A}
48	38.99 ± 15.29 ^{a,A}	46.51 ± 5.99 ^{a,A}	36.86 ± 4.76 ^{a,b,A}	15.51 ± 1.24 ^{b,A}
72	53.48 ± 11.99 ^{a,A}	61.03 ± 9.16 ^{a,A}	43.30 ± 10.86 ^{a,A}	17.04 ± 5.33 ^{b,A}

Different lowercase letters in the same line and different capital letters in the same column indicate a significant difference between the mean values (Tukey's test, $p < 0.05$). *Percentage values consider optic density at 560 nm between the 0.000 - 1.000 range.