

Supplemental Information

Sciatic Nerve Regeneration Induced by Glycosaminoglycan and Laminin Mimetic Peptide Nanofiber Gels

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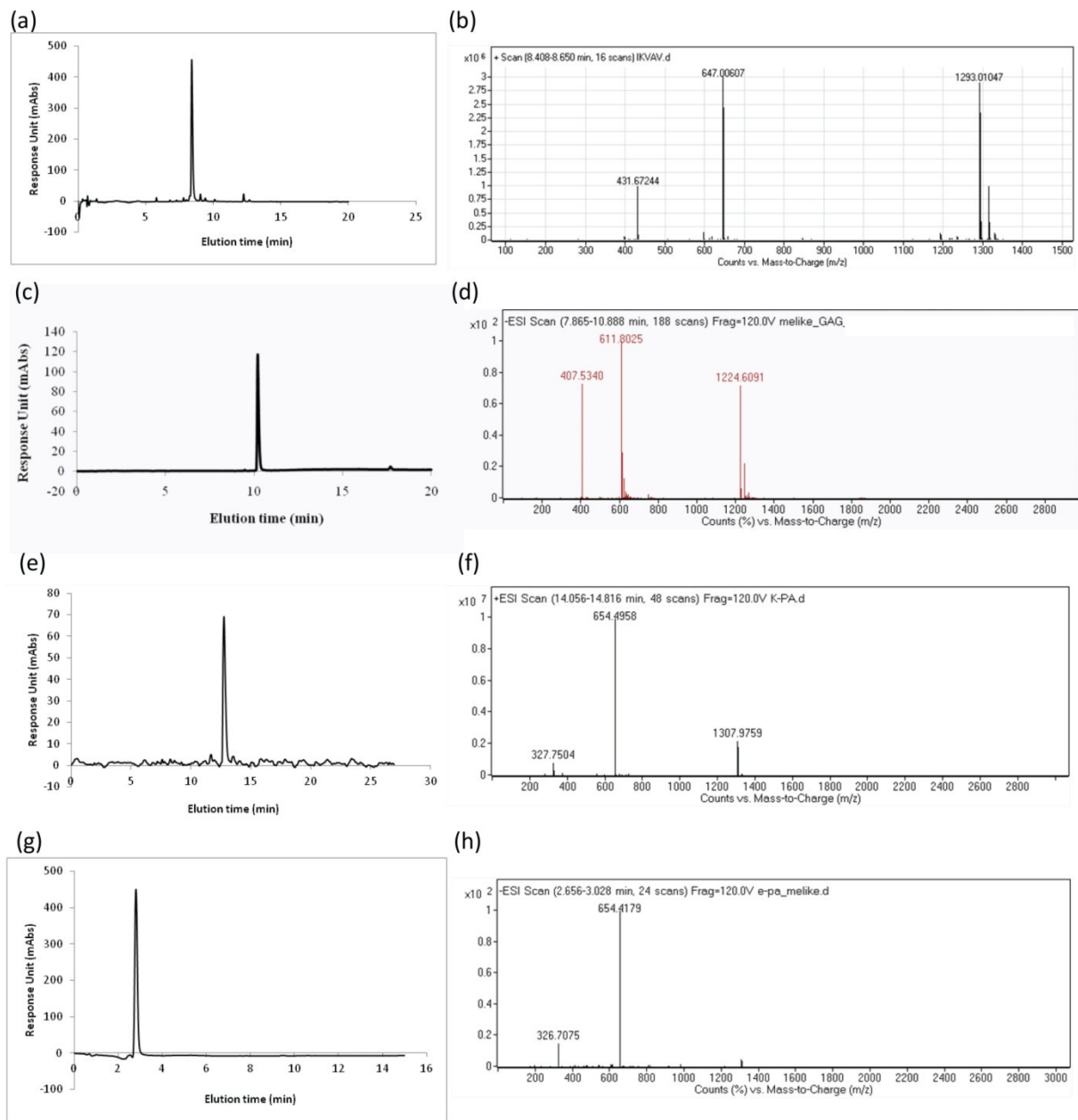


Figure S1 Liquid Chromatography and Mass Spectroscopy of LN-PA (a,b), GAG-PA (c,d), K-PA (e,f) and E-PA (g,h).

Mass spectrometry of LN-PA; $[M+H]^+$ (calculated): 1292.93, $[M+H]^+$ (observed): 1293.01, $[M+2H]^{+2/2}$ (calculated): 646.96, $[M+2H]^{+2/2}$ (observed): 647.01, $[M+3H]^{+3/3}$ (calculated): 431.64, $[M+2H]^{+2/2}$ (observed): 431.67.

Mass spectrometry of GAG-PA; $[M-H]^-$ (calculated): 1225.59, $[M-H]^-$ (observed): 1224.61, $[M-2H]^{-2/2}$ (calculated): 612.29, $[M-2H]^{-2/2}$ (observed): 611.80, $[M-3H]^{-3/3}$ (calculated): 407.86, $[M-3H]^{-3/3}$ (observed): 407.53.

Mass spectrometry of K-PA; $[2M+H]^+$ (calculated): 1307.96, $[2M+H]^+$ (observed): 1307.98, $[M+H]^+$ (calculated): 654.48, $[M+H]^+$ (observed): 654.50, $[M+2H]^{+2/2}$ (calculated): 327.74, $[M+2H]^{+2/2}$ (observed): 327.75.

Mass spectrometry of E-PA; $[M-H]^-$ (calculated): 654.42, $[M-H]^-$ (observed): 654.42, $[M-2H]^{-2/2}$ (calculated): 326.71, $[M-2H]^{-2/2}$ (observed): 326.71.

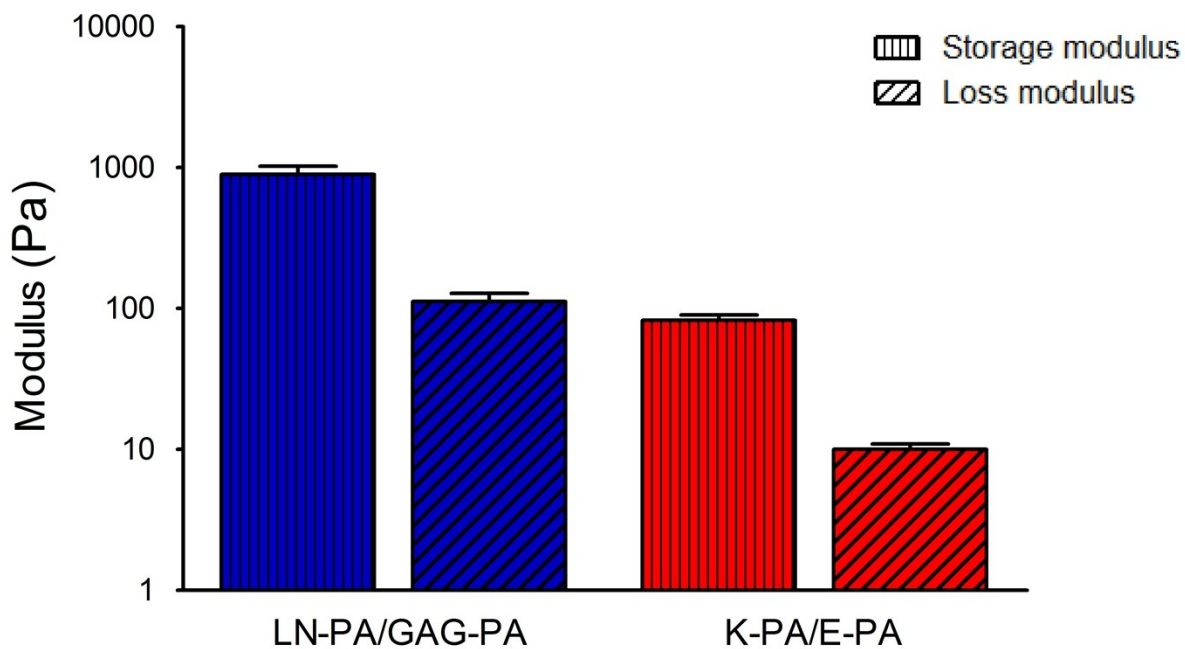


Figure S2 Characterization of mechanical properties of PA gels.

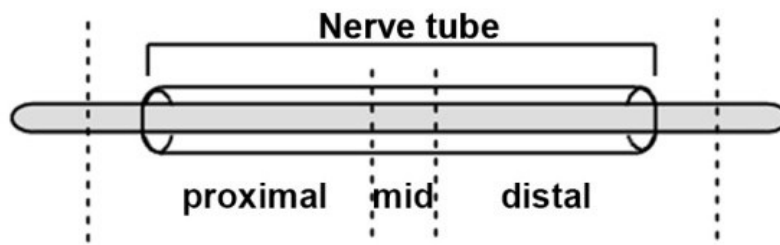


Figure S3 Excised nerve tissue parts used for different histological analysis. Proximal and distal tissues are embedded in paraffin while mid tissue is embedded in resin for ultrastructure analysis.

Table S1 Number of rats with digit loss in each experimental group.

Experimental groups	Number of rats with digit loss
LN-PA/GAG-PA	1
K-PA/E-PA	0
S	2
A	4