Electronic Supplementary Information

Artificial Hagfish Protein Fibers with Ultra-High and Tunable Stiffness

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Supporting Figures

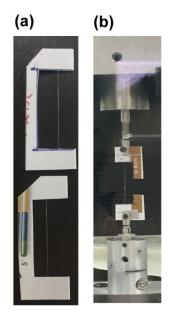


Fig. S1 Photographs of (a) individual fibers fixed on cardboard frames with a gauge length of 20 mm and an average width of 80 μ m; and (b) cardboard frame with an individual fiber mounted on the tester grips and side cut open right before testing.

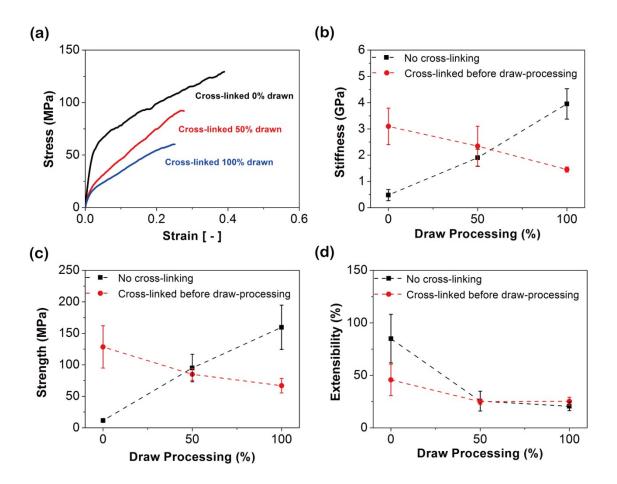


Fig. S2 Tensile behavior and mechanical properties of artificial (rec)EsTK-based fibers. (a) Representative stress-strain curves of fibers cross-linked before draw-processing, strained to failure. All fibers were fully dried. (b) Stiffness versus fiber draw-processing degree. (c) Strength versus fiber draw-processing degree. (d) Extensibility versus fiber draw-processing degree.

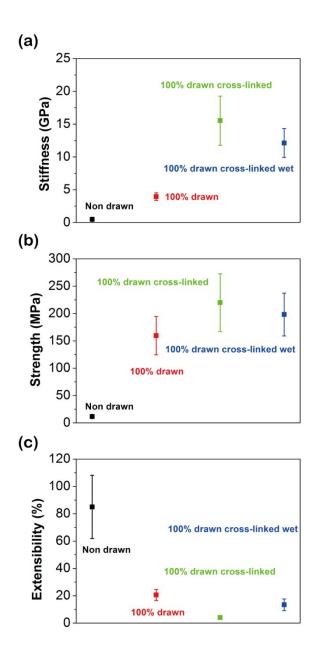


Fig. S3 Mechanical properties of artificial hagfish fibers of non-drawn, 100% draw-processed, 100% draw-processed cross-linked and re-hydrated 100% draw-processed cross-linked. (a) Stiffness; (b) Strength; (c) Extensibility.