



**S4 Fig. Analysis of FRAP data.**  $ln(I_0-I(t))$  vs  $\Delta t$  for representative recovery curves on mucin gels with water activity of 0.97 (A), 0.94 (B), 0.85 (C), 0.81 (D), 0.77 (E), 0.73 (F), 0.66 (G), 0.35 (H) and 0.12 (I). Two linear regimes are visible.