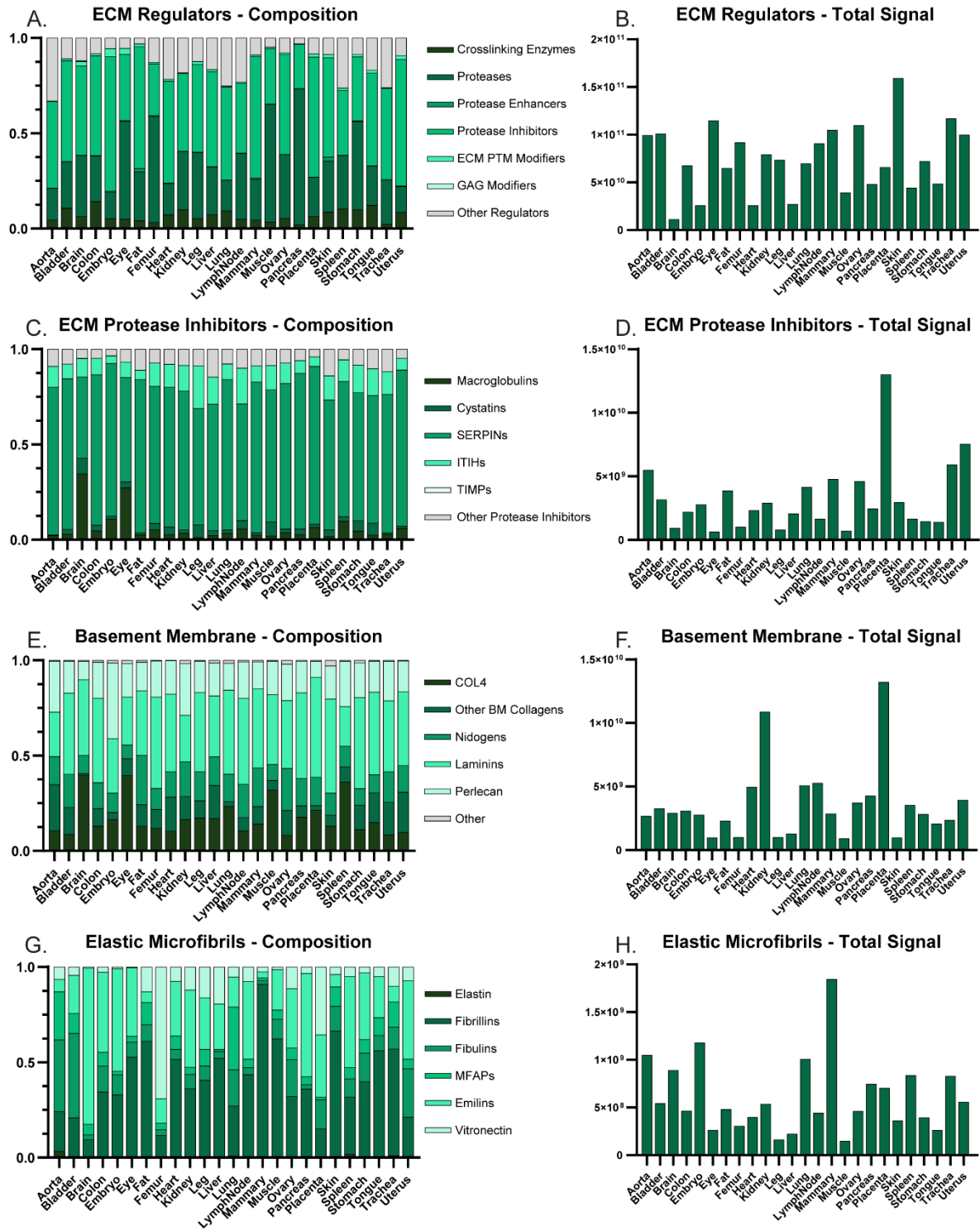
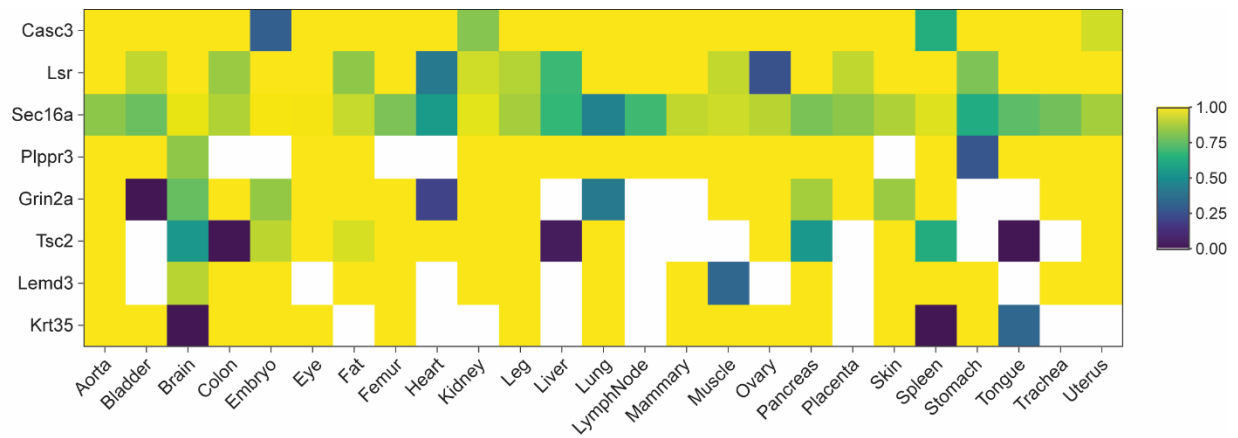


Collagens	Col12a1, Col14a1, Col16a1, Col9a1, Col9a2, Col11a1, Col11a2, Col1a1, Col1a2, Col27a1, Col2a1, Col3a1, Col5a1, Col5a2, Col17a1, Col25a1, Col10a1, Col8a1, Col8a2, Col26a1, Col28a1, Col6a1, Col6a2, Col6a4, Col6a5, Col6a6, Col7a1, Col15a1, Col18a1, Col4a1, Col4a2, Col4a3, Col4a4
Non-Fibrillar Collagens	Col14a1, Col16a1, Col9a1, Col9a2, Col17a1, Col25a1, Col10a1, Col8a1, Col8a2, Col26a1, Col28a1, Col6a1, Col6a2, Col6a4, Col6a5, Col6a6, Col7a1, Col15a1, Col18a1, Col4a1, Col4a2, Col4a3, Col4a4
ECM Proteases	Cpn2, Habp2, Adam10, Adam11, Adam17, Adam22, Adam23, Adam9, Adamts20, Adamts5, Adamtsl4, Ctsa, Ctsb, Ctsc, Ctsd, Ctse, Ctsf, Ctsj, Ctsh, Ctsj, Ctsl, Ctss, Ctsz, F10, F12, F2, F7, F9, Plg, Masp1, Masp2, Cela1, Cela2a, Cela3b, Elane, Mep1a, Mep1b, Htra1, Htra3, Mmp12, Mmp13, Mmp2, Mmp9, Prss2
Basement Membrane	Col15a1, Col18a1, Col4a1, Col4a2, Col4a3, Col4a4, Agrn, Lama1, Lama2, Lama3, Lama4, Lama5, Lamb1, Lamb2, Lamb3, Lamc1, Lamc2, Lamc3, Nid1, Nid2, Hspg2
ECM Regulators	Plod1, Plod2, Plod3, Hpse2, Hyal2, Sulf2, Pzp, St14, Cpn2, Habp2, Cd109, Hrg, Kng1, Slpi, Adam10, Adam11, Adam17, Adam22, Adam23, Adam9, Adamts20, Adamts5, Adamtsl4, Ctsa, Ctsb, Ctsc, Ctsd, Ctse, Ctsf, Ctsj, Ctsh, Ctsj, Ctsl, Ctss, Ctsz, F13a1, F10, F12, F2, F7, F9, Plg, Masp1, Masp2, Cst10, Cst3, Cstb, Ngly1, Cela1, Cela2a, Cela3b, Elane, Mep1a, Mep1b, Htra1, Htra3, Itih1, Itih2, Itih3, Itih4, Itih5, Fam20b, Fam20c, Lox, Loxl1, Loxl2, Loxl3, Loxl4, A2m, Ambp, Mug2, Mmp12, Mmp13, Mmp2, Mmp9, Ogfod1, P4ha1, P4ha2, Agt, Serpina10, Serpina12, Serpina1a, Serpina1b, Serpina1d, Serpina1e, Serpina3b, Serpina3k, Serpina3m, Serpina3n, Serpina6, Serpinb12, Serpinb1a, Serpinb1b, Serpinb2, Serpinb5, Serpinb7, Serpinb8, Serpinc1, Serpind1, Serpine1, Serpine2, Serpinf1, Serpinf2, Serping1, Serpinh1, Serpini2, Tgm1, Tgm2, Tgm3, Tgm5, Timp2, Timp3, Prss2
Elastic Microfibrils	Eln, Emilin1, Emilin2, Emilin3, Fbln1, Fbln2, Fbln5, Fbn1, Fbn2, Mfap1a, Mfap2, Mfap4, Mfap5, Vtn
ECM Protease Inhibitors	Papln, Cd109, Hrg, Kng1, Slpi, Cst10, Cst3, Cstb, Itih1, Itih2, Itih3, Itih4, Itih5, A2m, Ambp, Mug2, Agt, Serpina10, Serpina12, Serpina1a, Serpina1b, Serpina1d, Serpina1e, Serpina3b, Serpina3k, Serpina3m, Serpina3n, Serpina6, Serpinb12, Serpinb1a, Serpinb1b, Serpinb2, Serpinb5, Serpinb7, Serpinb8, Serpinc1, Serpind1, Serpine1, Serpine2, Serpinf1, Serpinf2, Serping1, Serpinh1, Serpini2, Timp2, Timp3

**Supplementary Table 1.** Contents of matrisome subcategories used in ECM composition analysis.



**Supplementary Figure 1. Fractional composition and abundance of additional ECM protein subclasses vary by tissue.** A) Fractional composition of ECM regulators by total intensity. B) Total ECM regulator protein intensity. C) Fractional composition of ECM protease inhibitors by total intensity. D) Total ECM protease inhibitor intensity. E) Fractional composition of basement membrane proteins by total intensity. F) Total basement membrane protein intensity. G) Fractional composition of elastic microfibril proteins by total intensity. H) Total elastic microfibril protein intensity.



**Supplementary Figure 2. Cellular proteins resistant to chaotrope extraction.** Cells are colored by solubility, calculated as the percent of total intensity for each protein identified in the iECM fraction.