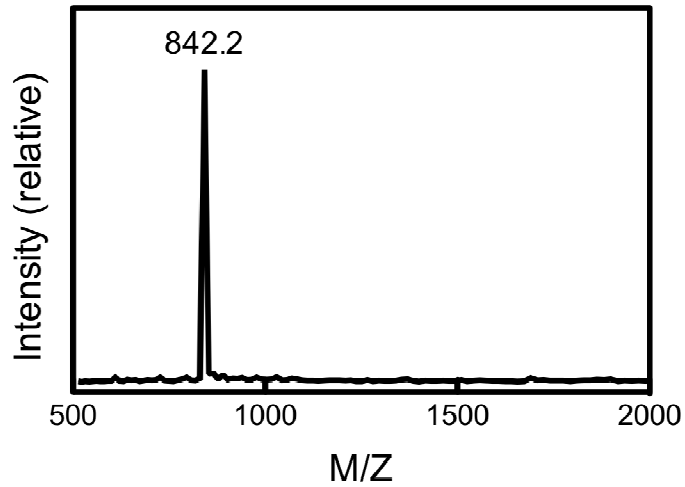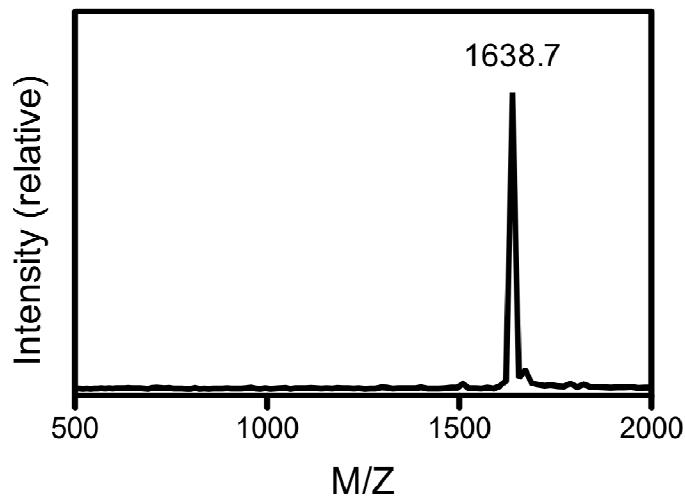SUPPLEMENTAL INFORMATION.

S01. MALDI-TOF for affinity peptides

A. MALDI-TOF spectra for GGGGWSHW peptide. Theoretical molecular weight = 842.8

B. MALDI-TOF spectra for KRIWFIPRSSWY peptide. Theoretical molecular weight = 1638.9

SUPPLEMENTAL INFORMATION.

S02. Hydrodynamic radius estimates from Stokes-Einstein, in water at 20°C.

The Stokes-Einstein diffusivity relationship can be used to calculate the effective hydrodynamic radius from protein diffusivity. Diffusivities on the order of 10^{-6} to 10^{-7} cm^2/s are typically reported for proteins in aqueous solutions. For a diffusivity greater than 3.0×10^{-7} cm^2/s, the estimated hydrodynamic diameter for TGFβ_1 calculated from Stokes-Einstein is 160 Å similar in size or smaller than the estimated mesh size for all three PEG gels.

Diffusivity (cm^2/s)	Hydrodynamic Radius (Å)
1.00×10^{-7}	237
1.25×10^{-7}	190
1.50×10^{-7}	158
2.00×10^{-7}	119
2.25×10^{-7}	105
2.50×10^{-7}	95
3.00×10^{-7}	79
4.00×10^{-7}	59
5.00×10^{-7}	47
1.00×10^{-6}	24

SUPPLEMENTAL INFORMATION.

S03. Selected protein molecular weights and hydrodynamic radii*

Protein	Molecular Weight (Da)	Reported r_H (Å)
Bovine pancreatic trypsin inhibitor	6,500	15.8
Cytochrome C	12,000	17.8
Lysozyme	14,700	20.5
Streptokinase	47,000	30.6
Triosephosphate isomerase (dimer)	54,000	29.7

* data taken from Wilkins, D. K.; Grimshaw, S. B.; Receveur, V.; Dobson, C. M.; Jones, J. A.; Smith, L. J. *Biochemistry* 1999, *38*, 16424-16431.

SUPPLEMENTAL INFORMATION.

S04. Swollen shear modulus for control and peptide gels. T-test showed no significant difference between moduli for control gels and gels made with either WSHW (R=10,000) or KRIWFIPRSSWY (R=10,000). Measurements made at 5 rad/s using dynamic strain sweep from 1% to 100% strain at 25°C.