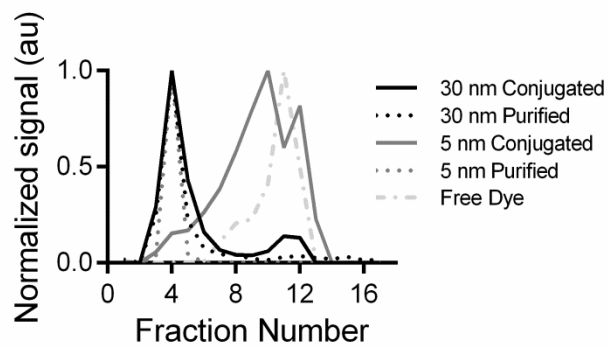


Fluorescent Tracer	500 nm Polystyrene Sphere	50 nm Polystyrene Sphere	500 kDa (30 nm) Dextran	10 kDa (5 nm) Dextran
Zeta Potential (mV)	-31.3	-15.1	-2.2	-1.7
Fluorescent Tag (λ Ex/Em)	580/610	660/680	700/720	610/630

Supplementary Table S1. TSF tracer panel zeta potentials and fluorescent excitations/emissions.



Supplementary Figure S1. Preparative and analytical size-exclusion chromatography demonstrating separation of free dye from TSF tracer dextran conjugates.

Limit of detection (pM) for:	10 kDa Dextran (610/630)	500 kDa Dextran (700/720)	50 nm Sphere (660/680)	500 nm Sphere (580/610)
Lymph Node	290	180	5.0	3.72E-04
Tumor	7000	280	30	4.54E-03
Spleen	660	210	10	3.40E-03
Lung	1460	460	6.0	1.88E-03
Liver	10000	800	180	2.60E-02
Kidney	3350	270	30	4.35E-03

Supplementary Table S2. TSF tracers with respective fluorescence settings (Excitation/Emission) detection limits (pM) within tissue homogenates.