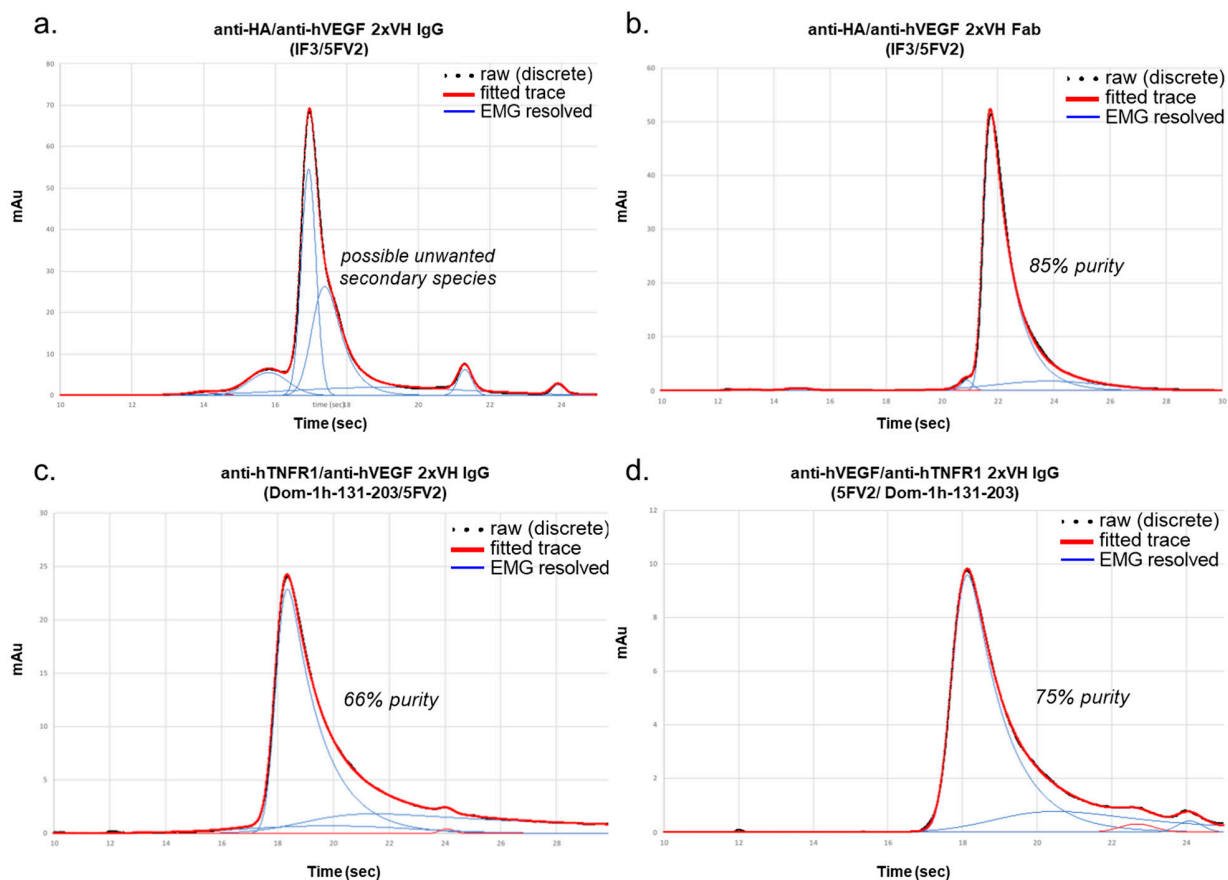


Supplementary Figure 1. SPR-Based binding profiles for six VH domains

Binding kinetics for expressible VH domains as assessed by SPR. VH domains were first captured on a chip using their C-terminal 6xhis-tag and their corresponding target antigen (**a-f**) was flowed over the chip at concentrations ranging from 0-50 nM. The target antigens included (**a**) VH-V1a (anti-VEGF) (**b**) Gr3 (anti-Her2) (**c**) Hel4 (anti-lysozyme) (**d**) Dom1m-21-23 (anti-mTNFR1) (**e**) 7F2 (anti-hemagglutinin) (**f**) 3D3 (anti-LuksPV) (**g**) Dom1h-131-511 (anti-hTNFR1).



Supplementary Figure 2. Exponentially Modified Gaussian (EMG) fits for four lead 2xVH molecules (Fabs and IgGs)

Modified gaussian curves were fit to SEC traces for 2xVH molecules to more accurately determine the percentage of monomeric species and detect the presence of any low-molecular weight species. Traces and EMG fits are shown for (a) anti-HA/anti-hVEGF IgG (b) anti-HA/anti-VEGF Fab (c) anti-hTNFR1/anti-hVEGF 2xVH (d) anti-hVEGF/anti-hTNFR1 IgG.