



Figure S1: Generation of covalent conjugates. **A.** Structures of glycolipid agonists. **B.** Coomassie blue stained SDS PAGE of purified fusion proteins (anti-human CEA-mCD1d- β 2m and anti-huHER2-mCD1d- β 2m (lanes 1 and 2), and anti-huHER2-hCD1d- β 2m and control ScFv 1237-hCD1d- β 2m (lanes 3 and 4)). Size exclusion chromatogram is shown of UV conjugated anti-humanHer2-mCD1d- β 2m. **C.** ELISA showing covalent stabilization of conjugates formed between anti-huHER2-mCD1d- β 2m fusion protein and C11:BP following photoactivation. Complexes (no UV exposure, left) or conjugates (UV treated, right) loaded with C11:BP or α -GalCer-C26:0 were incubated for 3 days with (black bars) or without (hatched bars) washing twice per day with PBS + 0.1% Triton X-100. Residual glycolipid bound to mCD1d was detected using biotinylated monoclonal antibody L363. Dashed line shows signal without glycolipid loading. *** $P < 0.001$, **** $P < 0.0001$, ns not significant; 2-way ANOVA with Sidak multiple comparison post test.