



Figure 1S. HLA-B27 free heavy chains bind LILRB2 but not LILRB1. **A** The grey SPR trace shows the change in binding of analyte to B27 heterotrimer. The first two injection peaks show binding of LILRB1 and LILRB2. Following this a glycine wash at pH 2.5, was injected (trough 3) causing β 2m and peptide to be removed. This was confirmed by failure of anti- β 2m MAb (BBM1) to bind in the fourth injection (peak 4). LILRB1 and LILRB2 were then injected again. LILRB2 binding to B27 was unchanged (peak 5), but LILRB1 binding was diminished. **B** SPR kinetic measurements yield a K_D value of $2.6\mu\text{M}$ for binding of LILRB2 to B27 free heavy chains. The K_D value was calculated using the Langmuir fit on the Biaevaluate software as well as being plotted and analysed using Origin 7.5. Inset is a Scatchard Plot of the data, demonstrating that the calculated K_D value is consistent over a range of analyte concentrations.