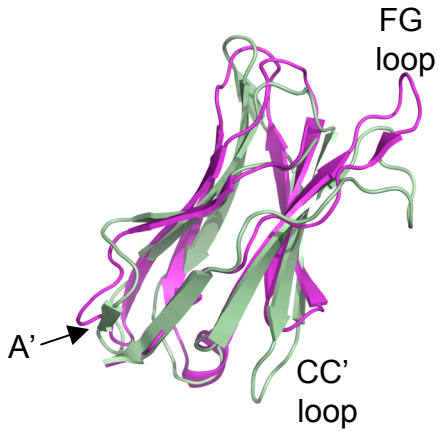


a

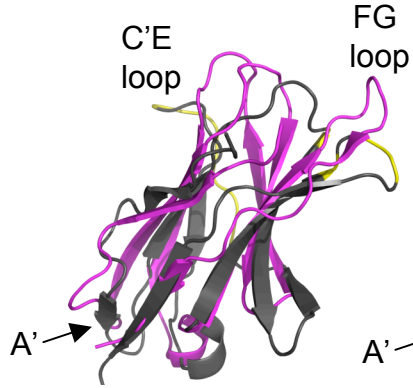
CHIR-AB1
KIR2DL1-D1



Rmsd = 2.5Å (92 C α atoms)
Sequence identity = 33%

b

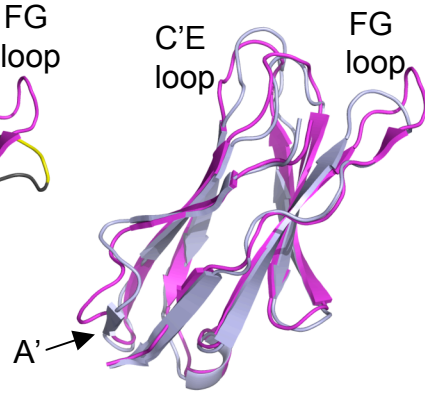
CHIR-AB1
Fc α RI-D1



Rmsd = 2.7Å (85 C α atoms)
Sequence identity = 28%

c

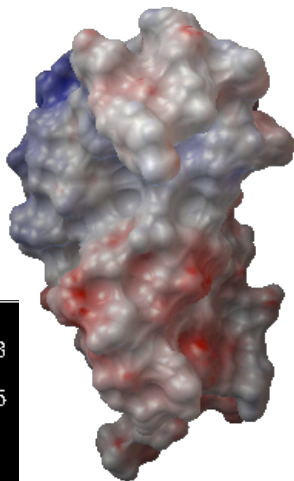
CHIR-AB1
NKp46-D1



Rmsd = 1.4Å (91 C α atoms)
Sequence identity = 30%

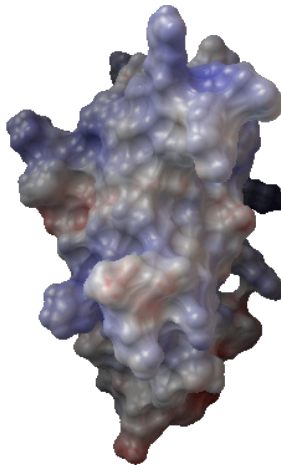
d

KIR2DL1-D1



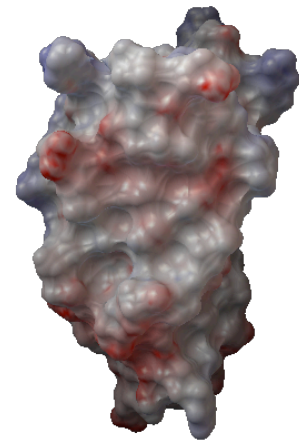
e

Fc α RI-D1



f

NKp46-D1



Supplementary Figure 1

Supplementary Figure 1. CHIR-AB1 and related proteins

Ribbon diagram of CHIR-AB1 (*pink*) superimposed on the D1 domains of (a) KIR2DL1 (*light green*), (b) Fc α RI (*black*), (c) NKp46 (*light blue*). The regions involved in IgA binding in Fc α RI are highlighted in *yellow*. (d-f) Electrostatic potentials on CHIR-AB1 relatives in the region corresponding to the CHIR-AB1 dimerization interface. Electrostatic potential is plotted from -10.3 kT/e (electronegative; *red*) to $+10.3$ kT/e (electropositive; *blue*) with *white* indicating electroneutrality. Compare to the electrostatic potential surface of the CHIR-AB1 monomer shown in Figure 3c.