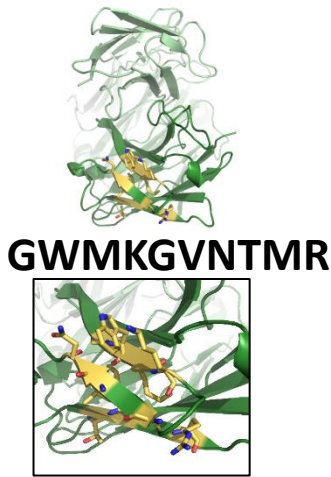


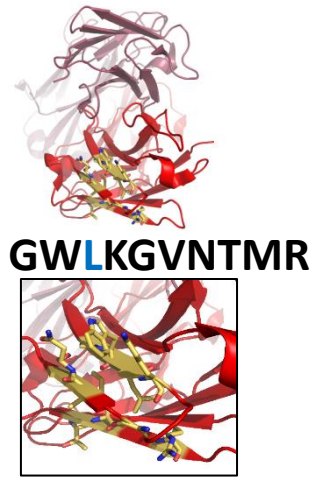
**A** 45-VRC01.H01+07.O-863513/45-VRC01.L01+07.O-110653<sub>93TH057</sub>

NIH45-46<sub>93TH057</sub>



Light chain

Heavy chain



**B**

Proteins compared	Rmsd (Å)	Contact surface overlap (Å <sup>2</sup> )
<b>Antibodies</b>		
45-VRC01.H01+07.O-863513/45-VRC01.L01+07.O-110653 <sub>d45-01dG5</sub> to 45-VRC01.H01+07.O-863513/45-VRC01.L01+07.O-110653 <sub>93TH057</sub>	0.38	1053
45-VRC01.H01+07.O-863513/45-VRC01.L01+07.O-110653 <sub>d45-01dG5</sub> to NIH45-46 <sub>93TH057</sub>	0.45	1136
45-VRC01.H01+07.O-863513/45-VRC01.L01+07.O-110653 <sub>93TH057</sub> to NIH45-46 <sub>93TH057</sub>	0.50	1177
<b>HIV-1 gp120s</b>		
d45-01dG5 <sub>45-VRC01.H01+07.O-863513/45-VRC01.L01+07.O-110653</sub> to 93TH057 <sub>45-VRC01.H01+07.O-863513/45-VRC01.L01+07.O-110653</sub>	0.58	1070
d45-01dG5 <sub>45-VRC01.H01+07.O-863513/45-VRC01.L01+07.O-110653</sub> to 93TH057 <sub>NIH45-46</sub>	0.57	1031
93TH057 <sub>45-VRC01.H01+07.O-863513/45-VRC01.L01+07.O-110653</sub> to 93TH057 <sub>NIH45-46</sub>	0.48	1177

**C**

**VH1-2\*02** QVQLVQSGAEVKKPGASVKVSCKASGYTFRTGYMHWVRQAPGQGLEWMGWINPNSGGTNYAQKFKQGRVTMTSDTSTISLAYMELSLRSDDTAVYYCAR  
**VRC01** (40 mut) -----GQM-----E-MRI--R----E-IDCTLN-I-L---KRP-----LK-RG-AV---RPL-----VYSD--FL--RS-TV-----F-T-GKNCNDYNWDFEH  
**VRC01\_VH-reverted** -----GQM-----E-MRI--R----E-IDCTLN-I-L---KRP-----LK-RG-AV---RPL-----VYSD--FL--RS-TV-----F-T-GKNCNDYNWDFEH

**VK3-20\*01** EIVLTQSPGTLSSLSPGERATLSCRASQSVSSSYLAWYQQKPGQAPRLLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYYC  
**VRC01** (24 mut) -----T-II---T--YG-ΔΔΔ-----R-----V--SG-T--A-----RW-P-YN---N--SG--G---QQYEF  
**VRC01\_VK-reverted** -----T-II---T--YG-ΔΔΔ-----R-----V--SG-T--A-----RW-P-YN---N--SG--G---QQYEF

	01dG5 gp120			01dC3 gp120			01dA12 gp120		
	K <sub>on</sub>	K <sub>off</sub>	K <sub>D</sub> (M)	K <sub>on</sub>	K <sub>off</sub>	K <sub>D</sub> (M)	K <sub>on</sub>	K <sub>off</sub>	K <sub>D</sub> (M)
VRC01 VH-reverted	4.06 x 10 <sup>4</sup>	7.45 x 10 <sup>-2</sup>	1.84 x 10 <sup>-6</sup>	NB	NB	NB	NB	NB	NB
Clade 01+07 member* (1995)	2.06 x 10 <sup>5</sup>	2.64 x 10 <sup>-5</sup>	1.28 x 10 <sup>-10</sup>	9.11 x 10 <sup>4</sup>	7.25 x 10 <sup>-6</sup>	7.96 x 10 <sup>-11</sup>	1.06 x 10 <sup>5</sup>	4.50 x 10 <sup>-5</sup>	4.23 x 10 <sup>-10</sup>
VRC07 (2008)	2.44 x 10 <sup>5</sup>	1.69 x 10 <sup>-5</sup>	6.91 x 10 <sup>-11</sup>	1.06 x 10 <sup>5</sup>	6.08 x 10 <sup>-5</sup>	6.08 x 10 <sup>-10</sup>	1.67 x 10 <sup>5</sup>	5.81 x 10 <sup>-7</sup>	3.49 x 10 <sup>-12</sup>

\*45-VRC01.H01+07.O-863513/45-VRC01.L01+07.O-110653  
 NB = No binding