A

OD$_{450}$

300 nM [mAb]

● DC1.7		◆ DC2.74	
○ DC1.55		◇ DC2.82	
■ DC1.56		✕ DC2.85	
▫ DC1.159		● DC2.112	
▲ DC2.3		▪ DC2.284	
△ DC2.69			

B

DC1.380   DC1.55   DC1.364   DC1.415   DC2.85   DC2.82

Binding (nm)   Time (s)

375nM
188nM
94nM
47nM

375 nM
188 nM
94 nM
47 nM
24 nM

mAb	k$_{on}$ (M^{-1}s^{-1})	k$_{off}$ (s^{-1})	K$_D$ (M)
DC 1.380	$(8.16\pm0.07)\times10^4$	$(1.67\pm0.05)\times10^{-4}$	$(2.04\pm0.07)\times10^{-9}$
DC 1.55	$(1.72\pm0.02)\times10^5$	$(2.99\pm0.01)\times10^{-3}$	$(1.74\pm0.02)\times10^{-8}$
DC 1.364	$(1.08\pm0.07)\times10^5$	$(6.04\pm0.04)\times10^{-4}$	$(5.57\pm0.05)\times10^{-9}$
DC 1.415	$(1.10\pm0.05)\times10^5$	$(1.28\pm0.03)\times10^{-4}$	$(1.17\pm0.03)\times10^{-9}$
DC 2.85	$(4.68\pm0.02)\times10^4$	$(1.44\pm0.02)\times10^{-4}$	$(3.07\pm0.04)\times10^{-9}$
DC 2.82	$(4.34\pm0.03)\times10^4$	$(1.04\pm0.03)\times10^{-3}$	$(2.39\pm0.02)\times10^{-8}$

C

E1' ELISA   p62-E1 ELISA   BSA ELISA

OD$_{450}$

Log([mAb] nM)
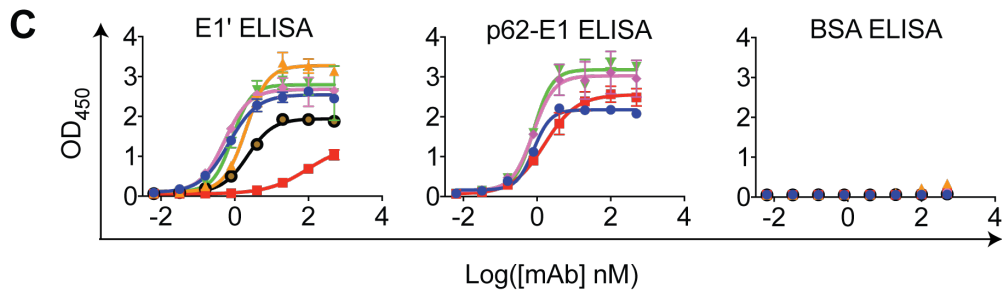
	EC$_{50}$ (nM) (95% C.I.)	
	E1'	p62-E1
● DC1.7	0.69 (0.57-0.83)	0.80 (0.65-0.94)
▲ DC1.56	2.0 (1.7-2.4)	ND
◆ DC2.284	0.53 (0.40-0.68)	0.78 (0.50-1.1)
■ DC2.315	>	1.6 (1.1-2.2)
✦ DC1.415	0.86 (0.58-1.2)	0.81 (0.56-1.1)
● chCHK-166^{pMAZ}	2.2 (1.9-2.6)	ND

Figure S4. Binding of E1-Specific mAbs. (**A**) Initial screening data of mAbs for binding to E1'

by ELISA at a single mAb concentration (300 nM). Only those mAbs having appreciable activity

against E1' are shown, all others were negative. Each point represents the mean of two replicates.

(**B**) BLI analysis of interactions between E1-specific mAbs and p62-E1. A representative dataset

from two independent experiments is shown. (**C**) ELISA analysis of binding of E1-specific

mAbs to E1', p62-E1, or BSA. For p62-E1 ELISA, only DC1.7, DC2.284, DC2.315, and

DC2.415 were analyzed. A representative dataset from two independent experiments performed

in triplicate is shown. Each point represents mean ± SD.