

Table 1: p17

Mab ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
1 32/5.8.42	p17(12-19 + 100-105 IIIB) <b>References:</b> [Papsidero et al.(1989)]	p17	ELDRWEKI + ALDKIE	N	Viral lysate	murine(IgG)
	<b>NOTES:</b>					
	• 32/5.8.42: Inhibited infectivity of cell free virus – bound to both peptides, ELDRWEKI and ALDKIE [Papsidero et al.(1989)]					
2 L14.17	p17(11-25 BRU) <b>References:</b> [Tatsumi et al.(1990), Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)]	p17(11-25)	GELDRWEKIRLRPPGG	N	Inactivated BRU	murine(IgG)
3 HyHIV-4	p17(12-29 JMH1) <b>References:</b> [Ota et al.(1998)]	p17(12-29)	ELDKWEKIRLRPPGGKTL Y	N	rec p17	murine(IgG <sub>1</sub> )
	<b>NOTES:</b>					
	• HyHIV-4: epitope uncertain, based on the best estimate from JMH1 sequence– K <sub>415</sub> is $1.8 \times 10^7 M^{-1}$ for rec p17 – stains the surface of infected cells indicating the antigen is exposed at the cell surface [Ota et al.(1998)]					
4 32/1.24.89	p17(17-22 IIIB) <b>References:</b> [Papsidero et al.(1989)]	p17(17-22)	EKIRLR	N	Viral lysate	murine(IgG)
	<b>NOTES:</b>					
	• 32/1.24.89: Inhibited infectivity of cell free virus [Papsidero et al.(1989)]					
5 3E11	p17(19-38 SIVmac) <b>References:</b> [Otteken et al.(1992), Nilsen et al.(1996)]	p17(19-38) WAA	IRLPGGKKKYYMLKHVV- WAA	N	Inact AGMTYO-7	murine(IgG <sub>1</sub> )
	<b>NOTES:</b>					
	• 3E11 : There is another Mab with this ID that recognizes integrase [Nilsen et al.(1996)]					
	• 3E11 : recognized an epitope present on HIV-2/SIVmac (MAC251/32H), SIVagm, HIV-1, and SIVmd, demonstrating that the matrix protein of all nine HIV and SIV isolates tested in this study expresses at least one highly conserved immunogenic epitope [Otteken et al.(1992)]					

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6 3B10	p17(19-38 SIVmac)	p17(19-38)	IRLPGGKKKKYMLKHVV- WAA	N	Inact AGMTYO-7	murine(IgG <sub>1</sub> )
	<b>References:</b> [Otteken et al.(1992)]					
	<b>NOTES:</b>					
	<ul style="list-style-type: none"> <li>• 3B10: recognized an epitope present on HIV-2/SIV mac (MAC251/32H), SIVagm, HIV-1, and SIVmnd, demonstrating that the matrix protein of all nine HIV and SIV isolates tested in this study expresses at least one conserved immunogenic epitope recognized serologically [Otteken et al.(1992)]</li> </ul>					
7 HyHIV-21	p17(30-52 JMHI)	p17(30-52)	KLKHIIWASRELERFAV- NPGLE	N	rec p17	murine(IgG <sub>2a</sub> )
	<b>References:</b> [Ota et al.(1998)]					
	<b>NOTES:</b>					
	<ul style="list-style-type: none"> <li>• HyHIV-21: epitope uncertain, based on the best estimate from JMHI sequence – K<sub>A</sub> is <math>3.6 \times 10^6 M^{-1}</math> for rec p17 – stains the surface of infected cells indicating the antigen is exposed at the cell surface –inhibited growth of HIV-1 JMHI in MT-4 cells when added 24 hours after the initial culture [Ota et al.(1998)]</li> </ul>					
8 HyHIV-22	p17(53-87 JMHI)	p17(52-87)	ETSEGCRRQLGQRPSL- QTGSEELRSLYNTIH	N	rec p17	murine(IgG <sub>1</sub> )
	<b>References:</b> [Ota et al.(1998)]					
	<b>NOTES:</b>					
	<ul style="list-style-type: none"> <li>• HyHIV-22: epitope uncertain, based on the best estimate from JMHI sequence – stains the surface of infected cells indicating the antigen is exposed at the cell surface – K<sub>A</sub> is <math>2.3 \times 10^5 M^{-1}</math> for rec p17 [Ota et al.(1998)]</li> </ul>					
9 -B4f8	p17(51-65)	p17(51-65)	LETSEGCRRQLGQLQ	N	IIIB lysate	rat(IgG <sub>2a</sub> )
	<b>References:</b> [Shang et al.(1991)]					
	<b>NOTES:</b>					
	<ul style="list-style-type: none"> <li>• -B4f8: Did not bind live infected cells, only cells that had been made permeable with acetone [Shang et al.(1991)]</li> </ul>					

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10 12H-D3b3	p17(62-78) <b>References:</b> [Shang et al.(1991)] <b>NOTES:</b>	p17(62-78)	GQLQPSLQQTGSEELRSL	N	IIB lysate	rat(IgG <sub>2a</sub> )
	<ul style="list-style-type: none"> <li>12H-D3b3: Did not bind live infected cells, only cells that had been made permeable with acetone [Shang et al.(1991)]</li> </ul>					
11 12G-A8g2	p17(86-115) <b>References:</b> [Shang et al.(1991)] <b>NOTES:</b>	p17(86-115)	YCVHQRIEIKDTKEALD-KIEEEQNKSKKKA	N	IIB lysate	rat(IgG <sub>2a</sub> )
	<ul style="list-style-type: none"> <li>12G-A8g2: Bound to 30-mer, but not to internal peptides – did not bind live infected cells – antigenic domain known as HPG30 [Shang et al.(1991)]</li> </ul>					
12 12G-D7h11	p17(86-115) <b>References:</b> [Shang et al.(1991)] <b>NOTES:</b>	p17(86-115)	YCVHQRIEIKDTKEALD-KIEEEQNKSKKKA	N	IIB lysate	rat(IgG <sub>2a</sub> )
	<ul style="list-style-type: none"> <li>12G-D7h11: Bound to 30-mer, but not to internal peptides – did not bind live infected cells – antigenic domain known as HPG30 [Shang et al.(1991)]</li> </ul>					
13 12I-D12g2	p17(86-115) <b>References:</b> [Shang et al.(1991)] <b>NOTES:</b>	p17(86-115)	YCVHQRIEIKDTKEALD-KIEEEQNKSKKKA	N	IIB lysate	rat(IgG <sub>2a</sub> )
	<ul style="list-style-type: none"> <li>12I-D12g2: Bound to 30-mer, but not to internal peptides – did not bind live infected cells – antigenic domain known as HPG30 [Shang et al.(1991)]</li> </ul>					
14 12G-H1c7	p17(86-115) <b>References:</b> [Shang et al.(1991)] <b>NOTES:</b>	p17(86-115)	YCVHQRIEIKDTKEALD-KIEEEQNKSKKKA	N	IIB lysate	rat(IgG)
	<ul style="list-style-type: none"> <li>12G-H1c7: Bound to 30-mer, but not to internal peptides – did not bind live infected cells – antigenic domain known as HPG30 [Shang et al.(1991)]</li> </ul>					

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Mab ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
15	polyclonal p17(86-115)	p17(86-115)	YSVHQRIDV/KDTEKALE- KIEEEQNKSKKKA	L	peptide, oral, cholera toxin adjuvant	murine(IgA)
	<b>References:</b> [Bukawa et al.(1995)]					
	<b>NOTES:</b>					
	<ul style="list-style-type: none"> <li>Polyclonal secretory IgA antibody raised by mucosal immunization is able to neutralize IIB, SF2, and MN – HIV-1 neutralization may be due to the V3, CD4 or HPG30 component of the multicomponent peptide immunogen [Bukawa et al.(1995)]</li> </ul>					
16	HyHIV-15 p17(87-115 JMHI)	p17(87-115)	?	N	rec p17	murine(IgG1)
	<b>References:</b> [Ota et al.(1998)]					
	<b>NOTES:</b>					
	<ul style="list-style-type: none"> <li>HyHIV-15: epitope uncertain, based on the best estimate from JMHI sequence – <math>K_{41s} 1.4 \times 10^7 M^{-1}</math> for rec p17 – stains the surface of infected cells indicating the antigen is exposed at the cell surface – inhibited growth of HIV-1 JMHI in MT-4 cells when added 24 hours after the initial culture [Ota et al.(1998)]</li> </ul>					
17	32/5.8.42 p17(12-19 + 100-105 IIB)	p17	ELDRWEKI + ALDKIE	N	Viral lysate	murine(IgG)
	<b>References:</b> [Papsidero et al.(1989)]					
	<b>NOTES:</b>					
	<ul style="list-style-type: none"> <li>32/5.8.42: Inhibited infectivity of cell free virus – bound ELDRWEKI and ALDKIE [Papsidero et al.(1989)]</li> </ul>					
18	1IH9 p17(101-115 SF2)	p17(101-115)	?	N	Inact CBL-1	murine(IgG1)
	<b>Donor:</b> R. B. Ferns and R. S. Tedder					
	<b>References:</b> [Ferns et al.(1987), Ferns et al.(1989)]					
	<b>NOTES:</b>					
	<ul style="list-style-type: none"> <li>1IH9: Reactive against p18 and p55 [Ferns et al.(1987)]</li> <li>1IH9: UK Medical Research Council AIDS reagent: ARP344</li> </ul>					
19	C5126 p17(113-122 HXB2)	p17(113-122)	KKAQQAAADT	N	Inact HIV lysate	murine(IgG1 $\kappa$ )
	<b>Donor:</b> R. B. Ferns and R. S. Tedder					
	<b>References:</b> [Hinkula et al.(1990)]					
	<b>NOTES:</b>					
	<ul style="list-style-type: none"> <li>C5126: Defined by peptide blocking of binding to native protein – WB reactive with p53 and p17 [Hinkula et al.(1990)]</li> </ul>					

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20 3-H-7	p17(113-122 BH10) <b>Donor:</b> R. B. Ferns and R. S. Tedder <b>References:</b> [Niedrig et al.(1989), Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a), Levin et al.(1997)] <b>NOTES:</b> <ul style="list-style-type: none"> <li>• 3-H-7: Also called 3H7</li> <li>• 3-H-7: No cross-reactivity with HIV-2 ROD or SIV MAC by immunoblot [Niedrig et al.(1989)]</li> <li>• 3-H-7: Called 3H7 – using a bicistronic vector, an intracellular Fab intrabody, 3H7, can inhibit HIV-1 infection when expressed in the cytoplasm of dividing CD4+ T cells – HXBIIIb and SI primary isolate virions from 3H7 expressing cells were far less infectious – 3H7 intrabody acts both at the stage of nuclear import and virus particle assembly [Levin et al.(1997)]</li> </ul>	p17(113-122)	KKAQQAADT	N	IIIb	murine(IgG)
21 31-11	p17(121-132 BRU) <b>Donor:</b> R. B. Ferns and R. S. Tedder <b>References:</b> [Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)]	p17(121-132)	DTGHSSQVSONY	N	BRU	murine(IgG)
22 15-21	p17(121-132 BRU) <b>Donor:</b> R. B. Ferns and R. S. Tedder <b>References:</b> [Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)]	p17(121-132)	DTGHSSQVSONY	N	BRU	murine(IgG)
23 4H2B1	p17(121-134 SF2) <b>Donor:</b> R. B. Ferns and R. S. Tedder <b>References:</b> [Ferns et al.(1987), Ferns et al.(1989)] <b>NOTES:</b> <ul style="list-style-type: none"> <li>• 4H2B1: Reactive against p18 and p55 of multiple isolates [Ferns et al.(1987)]</li> <li>• 4H2B1: UK Medical Research Council AIDS reagent: ARP315</li> </ul>	p17(119-132)	AAAGTGNSSQVSONY?	N	Inact CBL-1	murine(IgG <sub>1</sub> )
24 1D9	p17(121-134 SF2) <b>Donor:</b> R. B. Ferns and R. S. Tedder <b>References:</b> [Ferns et al.(1987), Ferns et al.(1989)] <b>NOTES:</b> <ul style="list-style-type: none"> <li>• 1D9: Reactive against p18, but not p55 [Ferns et al.(1987)]</li> <li>• 1D9: UK Medical Research Council AIDS reagent: ARP316</li> </ul>	p17(119-132)	AAAGTGNSSQVSONY?	N	Inact CBL-1	murine(IgG <sub>2a</sub> )
25 4C9	p18(121-134 SF2) <b>Donor:</b> R. B. Ferns and R. S. Tedder <b>References:</b> [Ferns et al.(1987), Ferns et al.(1989)] <b>NOTES:</b> <ul style="list-style-type: none"> <li>• 4C9: Reactive against p18, but not p55 [Ferns et al.(1987)]</li> <li>• 4C9: UK Medical Research Council AIDS reagent: ARP342</li> </ul>	p17(119-132)	AAAGTGNSSQVSONY?	N	Inact CBL-1	murine(IgG <sub>2a</sub> )

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26 9G5	p17(121-134 SF2) <b>Donor:</b> R. B. Ferns and R. S. Tedder <b>References:</b> [Ferns et al.(1987), Ferns et al.(1989)] <b>NOTES:</b> • 9G5: Reactive against p18, but not p55 [Ferns et al.(1987)] • 9G5: UK Medical Research Council AIDS reagent: ARP343	p17(119-132)	AAGTGNSSQVSYNY?	N	Inact CBL-1	murine(IgM)
27 CH9B2	p17 <b>Donor:</b> R. B. Ferns and R. S. Tedder <b>References:</b> [Ferns et al.(1987), Ferns et al.(1989)] <b>NOTES:</b> • CH9B2: Reactive against p18 and p55 [Ferns et al.(1987)] • CH9B2: UK Medical Research Council AIDS reagent: ARP349	p17	?	N	Inact CBL-1	murine(IgG1)
28 G11G1	p17 <b>Donor:</b> R. B. Ferns and R. S. Tedder <b>References:</b> [Shang et al.(1991), Pincus et al.(1996)] <b>NOTES:</b> • G11G1: Immunotoxins were generated by linking Env MAbs to ricin A – immunotoxins mediated cell killing, but only if the antigen was expressed at the cell surface – ricin-G11G1 did not mediate cell killing [Pincus et al.(1996)]	p17	?	N	?	rat
29 2A6	p17 <b>Donor:</b> A. O. Arthur, Frederick Cancer Research and Development Center, Frederick, MD <b>References:</b> [Pincus et al.(1998)] <b>NOTES:</b> • 2A6: Part of a panel of 17 MAbs used as controls testing for the dual specificity of MAb G11H3 for both p17 and mycoplasma [Pincus et al.(1998)]	p17	?	N	?	
30 G11H3	p17(dis) <b>Donor:</b> A. O. Arthur, Frederick Cancer Research and Development Center, Frederick, MD <b>References:</b> [Shang et al.(1991), Pincus et al.(1998)] <b>NOTES:</b> • G11H3: This MAb is cross-reactive between p17 and mycoplasma – this antibody binds strain specifically to the variable lipoprotein (Vlp) F of <i>M. hyorhinis</i> , in the region of the carboxy-terminal repeat CGGSTPTPEQGNNGG-GSTPTPEQGNSSQVSK – the p17 epitope is discontinuous, but p17 and VlpF share the tetrapeptideSSQVS [Pincus et al.(1998)]	p17(dis)	DISCONTINUOUS	N	?	

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31 HyHIV-19	p17(dis JMHI) <b>Donor:</b> A. O. Arthur, Frederick Cancer Research and Development Center, Frederick, MD <b>References:</b> [Ota et al.(1998)]	p17(dis)	DISCONTINUOUS	N	rec p17	murine(IgG <sub>1</sub> )
<b>NOTES:</b>						
<ul style="list-style-type: none"> <li>HyHIV-19: Does not react with p17 peptides – K<sub>A</sub> is 3.7 × 10<sup>6</sup> M<sup>-1</sup> for rec p17 – inhibited growth of HIV-1 JMHI in MT-4 cells when added 24 hours after the initial culture [Ota et al.(1998)]</li> </ul>						