

Table 2: **p24**

Mab ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
32 F5-2	p24(14-23 HXB2) Donor: A. O. Arthur, Frederick Cancer Research and Development Center, Frederick, MD References: [Kusk et al.(1988), Kusk et al.(1992)]	p24(14-23)	AISPRTLNAW	N	?	murine
	NOTES: • F5-2: In HIV-1+ individuals, antibody to AISPRTLNAW is associated with CD4 T-cell decline [Kusk et al.(1988), Kusk et al.(1992)]					
33 25.3	p24(82,100-102) Donor: A. O. Arthur, Frederick Cancer Research and Development Center, Frederick, MD References: [Momany et al.(1996)]	p24(82-102)	RVHPVHAGPIAPGQMR- PRGS	N		murine(IgG _{1κ})
	NOTES: • 25.3: Crystal structure of the CA protein bound to Fab 25.3 was solved – monomers form 7 α -helices arranged in a coiled-coil – Fab binds to a long antigenic peptide that separates the longest helices, with a salt bridge at CA 82 R, and interactions as far away as positions 100 and 102 [Momany et al.(1996)]					
34 91-6	p24(121-240) Donor: A. O. Arthur, Frederick Cancer Research and Development Center, Frederick, MD References: [Gorny et al.(1989), Robinson Jr. et al.(1990a)]	p24	?	N	HIV-1 infection	human(IgG _{1λ})
	NOTES: • 91-6: No enhancing activity for HIV-1 IIB [Robinson Jr. et al.(1990a)] • 91-6: NIH AIDS Research and Reference Reagent Program: 1239					
35 3A6	p24(122-149 BH10) Donor: A. O. Arthur, Frederick Cancer Research and Development Center, Frederick, MD References: [Buchacher et al.(1992), Buchacher et al.(1994)]	p24(1-17)	TGHSSQVSSQNYPIVQNI- QQQMVHQAIISP	N	HIV-1 infection	human(IgG _{1κ})
	NOTES: • 3A6: The reactive peptide spans the p17/p24 border of gag [Buchacher et al.(1994)] • 3A6: Human MAbs against HIV generated by electrofusion of PBL from HIV-1 positive volunteers with CB-F7 cells [Buchacher et al.(1994)]					
36 111/182	p24(134-153 IIB) Donor: A. O. Arthur, Frederick Cancer Research and Development Center, Frederick, MD References: [Niedrig et al.(1991)]	p24(1-20)	PIVQNIQQQMVHQAIISP- RTL	N	IIB p24- β -gal fusion	murine(IgG ₁)
	NOTES: • 111/182: Test specific evidence of cross-reactivity between HIV-1, HIV-2 and SIV MAC [Niedrig et al.(1991)]					

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Mab ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
37	112/021 p24(134-153 IIB)	p24(1-20)	PIVQNIQGQMVHQAISS- RTL	N	IIB p24- β -gal fusion	murine(IgG ₁)
<p>Donor: A. O. Arthur, Frederick Cancer Research and Development Center, Frederick, MD References: [Niedrig et al.(1991)] NOTES:</p> <ul style="list-style-type: none"> • 112/021: Test specific evidence of cross-reactivity between HIV-1, HIV-2 and SIV MAC [Niedrig et al.(1991)] 						
38	112/047 p24(134-153 IIB)	p24(1-20)	PIVQNIQGQMVHQAISS- RTL	N	IIB p24- β -gal fusion	murine(IgG ₁)
<p>Donor: A. O. Arthur, Frederick Cancer Research and Development Center, Frederick, MD References: [Niedrig et al.(1991)] NOTES:</p> <ul style="list-style-type: none"> • 112/047: Test specific evidence of cross-reactivity between HIV-1, HIV-2 and SIV MAC [Niedrig et al.(1991)] 						
39	ID8F6 p24(143-157 BRU)	p24(11-25)	VHQAISSPRTLNAWVK?	N	Inact CBL-1	murine(IgG ₁)
<p>Donor: R. B. Ferns and R. S. Tedder References: [Ferns et al.(1987), Ferns et al.(1989)] NOTES:</p> <ul style="list-style-type: none"> • ID8F6: Reacted with both p55 and p24 – showed less than 75% homologous inhibition [Ferns et al.(1987)] • ID8F6: UK Medical Research Council AIDS reagent: ARP348 						
40	CB-13/5 p24(152-156)	p24(21-25)	NAWVK	N	?	murine(IgG _{1κ})
<p>Donor: R. B. Ferns and R. S. Tedder References: [Grunow et al.(1990), Franke et al.(1992), Kuttner et al.(1992), Glaser & Hausdorff(1996)] NOTES:</p> <ul style="list-style-type: none"> • CB-13/5: It is not clear whether the MAbs CD-13/5 and CB-mab-p24/13-15 are the same, but from the shared references in the primary articles they seem to be (database note) • CB-13/5: Called CB-mab-p24/13-15 – the VDJ_H and VJ_L regions of CB-mab-p24/13-15 were sequenced [Kuttner et al.(1992)] • CB-13/5: Inhibits spread of HIV-1 in cell cultures [Franke et al.(1992)] • CB-13/5: Epitope VHQAISSPRTLNAWVK – binding not affected by bound Mab CB-4/1 [Glaser & Hausdorff(1996)] 						

HIV Monoclonal Antibodies

Mab ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
41 1A7	p24(152-172 SIVmac)	p24(152-172)	CVKQQPKPEPFQSYVDRF- YKSL	N	Inact AGMTYO-7	murine(IgG ₁)
	Donor: R. B. Ferris and R. S. Tedder References: [Otteken et al.(1992)] NOTES: <ul style="list-style-type: none"> • 1A7: Recognized an epitope present on HIV-2/SIVmac (MAC251/32H) and HIV-2smmH4, but not SIVagmTYO-1, HIV-1 IIIIB or SIVmd [Otteken et al.(1992)] 					
42 1.17.3	p24(152-172 SIVmac)	p24(152-172)	CVKQQPKPEPFQSYVDRF- YKSL	N	Inact AGMTYO-7	murine(IgG ₁)
	Donor: R. B. Ferris and R. S. Tedder References: [Otteken et al.(1992)] NOTES: <ul style="list-style-type: none"> • 1.17.3: Recognized an epitope present on HIV-2/SIVmac (MAC251/32H) and HIV-2smmH4, but not SIVagmTYO-1, HIV-1 IIIIB or SIVmd [Otteken et al.(1992)] 					
43 1F6	p24(152-172 SIVmac)	p24(152-172)	CVKQQPKPEPFQSYVDRF- YKSL	N	Inact AGMTYO-7	murine(IgG ₁)
	Donor: R. B. Ferris and R. S. Tedder References: [Otteken et al.(1992)] NOTES: <ul style="list-style-type: none"> • 1F6: Recognized an epitope present on HIV-2/SIVmac (MAC251/32H) and HIV-2smmH4, but not SIVagmTYO-1, HIV-1 IIIIB or SIVmd [Otteken et al.(1992)] 					
44 F5-4	p24(153-174 HXB2)	p24	IRQQPKPEPFRDYVDRFY- KTLRAE	N	?	murine
	Donor: R. B. Ferris and R. S. Tedder References: [Kusk et al.(1988), Kusk et al.(1992)] NOTES: <ul style="list-style-type: none"> • F5-4: Located in the most hydrophilic region of p24 [Kusk et al.(1988), Kusk et al.(1992)] 					

HIV Monoclonal Antibodies

Mab ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
45 CD-4/1	p24(182-197)	p24(46-56)	GATPQDLNTML	N	rec p24- β -galactosidase fusion protein	murine(IgG _{2aκ})
<p>Donor: R. B. Ferns and R. S. Tedder References: [Grunow et al.(1990), Franke et al.(1992), Glaser & Hausdorf(1996), Ehrhard et al.(1996)]</p> <p>NOTES:</p> <ul style="list-style-type: none"> • CD-4/1: Also called CB-4/1/F6 [Grunow et al.(1990)] • CD-4/1: Inhibits spread of HIV-1 in cell cultures [Franke et al.(1992)] • CD-4/1: Affinity of CB-4/1 to native p24 is lower than to peptide or denatured p24 – proposed that the peptide binds in a loop conformation [Hohne et al.(1993)] • CD-4/1: Unusual p24-Mab binding kinetics, with biphasic association – probably due to conformational changes in p24, not to p24 dimerization [Glaser & Hausdorf(1996)] • CD-4/1: Modification of p24 lysine residues by maleic anhydrid increased the affinity of CD-4/1, presumably due to conformational changes exposing a cryptic epitope [Ehrhard et al.(1996)] 						
46 15F8C7	p24(183-197)	p24(47-56)	ATPQDLNTML	N	Purified HIV-1	murine(IgG ₁)
<p>Donor: R. B. Ferns and R. S. Tedder References: [Janvier et al.(1990), Janvier et al.(1992)]</p> <p>NOTES:</p> <ul style="list-style-type: none"> • 15F8C7: Mapped to aa209-217 through Pepsan method – cross-reacts with HIV-2 [Janvier et al.(1990)] – maps to aa203-217 through EIA pentadecapeptide [Janvier et al.(1992)] 						
47 111/052	p24(183-192 IIIB)	p24(51-60)	DLNTMLNTVG	N	IIIB p24- β -gal fusion	murine(IgG ₁)
<p>Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1991)]</p> <p>NOTES:</p> <ul style="list-style-type: none"> • 111/052: Weak cross-reaction with HIV-2 on WB, otherwise not cross-reactive with HIV-2 or SIV MAC [Niedrig et al.(1991)] 						
48 91-5	p24(196-207)	p24(64-75)	AAMQMLKETTNE?	N	HIV-1 infection	human(IgG _{1λ})
<p>Donor: R. B. Ferns and R. S. Tedder References: [Gorny et al.(1989), Tyler et al.(1990), Robinson Jr. et al.(1990a), Gorny et al.(1998)]</p> <p>NOTES:</p> <ul style="list-style-type: none"> • 91-5: Synthesized by immortalization of peripheral blood cells with Epstein-Barr virus [Gorny et al.(1989)] • 91-5: Did not enhance HIV-1 IIIB infection [Robinson Jr. et al.(1990a)] • 91-5: NIH AIDS Research and Reference Reagent Program: 1238 						

HIV Monoclonal Antibodies

Mab ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
49 47-2	p24(201-218 BRU) Donor: R. B. Ferns and R. S. Tedder References: [Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)]	p24(69-86)	LKETINEEAAEWDRVHPV	N	BRU	murine(IgG)
50 714/01	p24(201-218 BRU) Donor: R. B. Ferns and R. S. Tedder References: [Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)]	p24(69-86)	LKETINEEAAEWDRVHPV	N	IIIb virus	murine(IgG)
51 1109/01	p24(201-218 BRU) Donor: R. B. Ferns and R. S. Tedder References: [Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)]	p24(69-86)	LKETINEEAAEWDRVHPV	N	IIIb virus	murine(IgG)
52 1G5C8	p24(201-218 BRU) Donor: R. B. Ferns and R. S. Tedder References: [Janvier et al.(1990), Janvier et al.(1992), Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)] NOTES: • 1G5C8: Mapped to aa209-217 through Pepscan method (original paper, AAEWDRVHP) [Janvier et al.(1990)] – and to aa203-217 through EIA pentadecapeptide [Janvier et al.(1992)]	p24(69-86)	LKETINEEAAEWDRVHPV	N	HIV-1 p24	murine(IgG _{2b})
53 14D4E11	p24(201-218 BRU) Donor: R. B. Ferns and R. S. Tedder References: [Janvier et al.(1990), Janvier et al.(1992), Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)] NOTES: • 14D4E11: Mapped to aa209-217 through Pepscan method (original paper, AAEWDRVHP) – cross-reacts with HIV-2 [Janvier et al.(1990)] – and to aa203-217 through EIA pentadecapeptide [Janvier et al.(1992)]	p24(69-86)	LKETINEEAAEWDRVHPV	N	Purified HIV-1	murine(IgG ₁)
54 113/038	p24(203-213 IIIb) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1991)] NOTES: • 113/038: cross-reactive between HIV-1, HIV-2 and SIV MAC by multiple assays [Niedrig et al.(1991)]	p24(71-81)	ETINEEAAEWD	N	IIIb p24-β-gal fusion	murine(IgG ₁)
55 111/073	p24(203-213 IIIb) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1991)] NOTES: • 111/073: cross-reactive between HIV-1, HIV-2 and SIV MAC by multiple assays [Niedrig et al.(1991)]	p24(71-81)	ETINEEAAEWD	N	IIIb p24-β-gal fusion	murine(IgG ₁)

HIV Monoclonal Antibodies

MAb ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
57 1-E-4	p24(203-217) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1989)] NOTES: • 1-E-4: One of nine MAbs that bind to this peptide [Niedrig et al.(1989)]	p24(71-85)	ETINEEAAEWDRVHP	N	III B virus	murine(IgG)
58 1-E-9	p24(203-217) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1989)] NOTES: • 1-E-9: One of nine MAbs that bind to this peptide [Niedrig et al.(1989)]	p24(71-85)	ETINEEAAEWDRVHP	N	III B virus	murine(IgG)
59 2-E-4	p24(203-217) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1988), Niedrig et al.(1989)] NOTES: • 2-E-4: Cross reactive between HIV-1, HIV-2 and SIV by ELISA, HIV-1 and HIV-2 by WB [Niedrig et al.(1988)] • 2-E-4: One of nine MAbs that bind to this peptide – cross-reactive with HIV-2 ROD [Niedrig et al.(1989)]	p24(71-85)	ETINEEAAEWDRVHP	N	III B virus	murine(IgG _{2a})
60 2-H-4	p24(203-217) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1988), Niedrig et al.(1989)] NOTES: • 2-H-4: Cross reactive between HIV-1, HIV-2 and SIV by ELISA, HIV-1 and HIV-2 by WB [Niedrig et al.(1988)] • 2-H-4: One of nine MAbs that bind to this peptide – cross-reactive with HIV-2 ROD [Niedrig et al.(1989)]	p24(71-85)	ETINEEAAEWDRVHP	N	III B virus	murine(IgG ₁)

HIV Monoclonal Antibodies

MAb ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
61 8-D-2	p24(203-217) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1989), Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)]	p24(71-85)	ETINEEAAEWDRVHP	N	IIIB virus	murine(IgG _{2a})
	NOTES: <ul style="list-style-type: none"> • 8-D-2: HIV-1 specific [Niedrig et al.(1988)] • 8-D-2: One of nine MAbs that bind to this peptide [Niedrig et al.(1989)] 					
62 8-H-7	p24(203-217) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1988), Niedrig et al.(1989), Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)]	p24(71-85)	ETINEEAAEWDRVHP	N	IIIB virus	murine(IgG ₃)
	NOTES: <ul style="list-style-type: none"> • 8-H-7: One of nine MAbs that bind to this peptide [Niedrig et al.(1989)] 					
63 8-G-9	p24(203-217) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1989)]	p24(71-85)	ETINEEAAEWDRVHP	N	IIIB virus	murine(IgG)
	NOTES: <ul style="list-style-type: none"> • 8-G-9: One of nine MAbs that bind to this peptide [Niedrig et al.(1989)] 					
64 10-E-7	p24(203-217) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1988), Niedrig et al.(1989)]	p24(71-85)	ETINEEAAEWDRVHP	N	IIIB virus	murine(IgG ₁)
	NOTES: <ul style="list-style-type: none"> • 10-E-7: Cross reactive between HIV-1, HIV-2 and SIV [Niedrig et al.(1988)] • 10-E-7: One of nine MAbs that bind to this peptide – cross-reactive with HIV-2 ROD and SIV MAC [Niedrig et al.(1989)] 					
65 10-G-9	p24(203-217) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1988), Niedrig et al.(1989)]	p24(71-85)	ETINEEAAEWDRVHP	N	IIIB virus	murine(IgG ₁)
	NOTES: <ul style="list-style-type: none"> • 10-G-9: HIV-1 specific [Niedrig et al.(1988)] • 10-G-9: One of nine MAbs that bind to this peptide [Niedrig et al.(1989)] 					

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Mab ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
66 11-C-5	p24(203-217) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1988), Niedrig et al.(1989)] NOTES:	p24(71-85)	ETINEEAAEWDRVHP	N	IIIb virus	murine(IgG ₁)
	<ul style="list-style-type: none"> • 11-C-5: HIV-1 specific [Niedrig et al.(1988)] • 11-C-5: One of nine MAbs that bind to this peptide [Niedrig et al.(1989)] 					
67 C5123	p24(203-217 HXB2) Donor: R. B. Ferns and R. S. Tedder References: [Hinkula et al.(1990)] NOTES:	p24(71-85)	ETINEEAAEWDRVHP	N	Inact HIV lysate	murine(IgG ₁ κ)
	<ul style="list-style-type: none"> • C5123: Epitope defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula et al.(1990)] 					
68 1-B-7	p24(208-217 BH10) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1988), Niedrig et al.(1989)] NOTES:	p24(76-85)	EAAEWDRVHP	N	IIIb	murine(IgG ₁)
	<ul style="list-style-type: none"> • 1-B-7: Reacts with two overlapping peptides, region of overlap is given – reacted with HIV-2 and SIV MAC [Niedrig et al.(1989)] 					
69 3-B-7	p24(208-217 BH10) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1988), Niedrig et al.(1989)] NOTES:	p24(76-85)	EAAEWDRVHP	N	IIIb	murine(IgG ₁)
	<ul style="list-style-type: none"> • 3-B-7: Reacts with two overlapping peptides, region of overlap is given – reacted with HIV-2 [Niedrig et al.(1989)] 					
70 6-D-12	p24(208-217 BH10) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1988), Niedrig et al.(1989)] NOTES:	p24(76-85)	EAAEWDRVHP	N	IIIb	murine(IgG ₁)
	<ul style="list-style-type: none"> • 6-D-12: Reacts with two overlapping peptides, region of overlap is given – reacted with HIV-2 [Niedrig et al.(1989)] 					
71 6-E-7	p24(208-217 BH10) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1988), Niedrig et al.(1989)] NOTES:	p24(76-85)	EAAEWDRVHP	N	IIIb	murine(IgG ₁)
	<ul style="list-style-type: none"> • 6-E-7: Reacts with two overlapping peptides, region of overlap is given – reacted with HIV-2 and SIV MAC [Niedrig et al.(1989)] 					

HIV Monoclonal Antibodies

Mab ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
72 8-D-5	p24(208-217 BH10) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1988), Niedrig et al.(1989)] NOTES: • 8-D-5: Reacts with two overlapping peptides, region of overlap is given – bound only HIV-1 [Niedrig et al.(1989)]	p24(76-85)	EAAEWDRVHP	N	IIB	murine(IgG)
73 FF1	p24(208-222 HXB2) Donor: R. B. Ferns and R. S. Tedder References: [Hinkula et al.(1990)] NOTES: • FF1: Epitope defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula et al.(1990)]	p24(76-90)	EAAEWDRVHPVHAGP	N	Inact HIV	murine(IgG ₁ κ)
56 113/072	p24(213-222 IIB) Donor: R. B. Ferns and R. S. Tedder References: [Niedrig et al.(1991)] NOTES: • 113/072: Weak cross-reaction with HIV-2 on WB, otherwise not cross-reactive with HIV-2 or SIV MAC [Niedrig et al.(1991)]	p24(81-90)	DRVHPVHAGP	N	IIB p24- β -gal fusion	murine(IgG ₁)
74 13-102-100	p24(102-112 IIB) Donor: Advanced Technologies, Inc., Columbia, MD References: [Parker et al.(1996), Qian & Tomer(1998)] NOTES: • 13-102-100: Binding site (HPVHAGPIAPG) defined by epitope footprinting – first binding p24 to MAb, then allowing proteolytic cleavage to take place to cleave unprotected residues, then performing mass spectrometry to identify protected residues of epitope [Parker et al.(1996)] • 13-102-100: Affinity capillary electrophoresis was used to fine map this epitope, and the optimal peptide was defined as VHAGPIAPGIAP – this method uses migration time shifts to probe relative affinities of Abs – the antibody binds to the cyclophilin A binding domain [Qian & Tomer(1998)]	p24(86-97)	VHAGPIAPGIAP			murine(IgG)
75 RL4.72.1	p24(219-233 BRU) Donor: Advanced Technologies, Inc., Columbia, MD References: [Tatsumi et al.(1990), Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)] NOTES: • RL4.72.1: Immunized with inactivated HIV NDK, D clade, reacts with B clade peptide [Robert-Hebmann et al.(1992a)]	p24(87-101)	HAGPIAPGQMPREPRG	N	NDK	murine(IgG)

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MAb ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
76 406/01	p24(233-253 BRU)	p24(101-121)	GSDIAGTTSTLQEQIGW-MTNN	N	IIB	murine(IgG)
	Donor: Advanced Technologies, Inc., Columbia, MD					
	References: [Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)]					
77 38:9.6K	p24(253-262 HXB2)	p24(121-130)	NPPVPGEIV	N	rec p24-15	murine(IgG _{1κ})
	Donor: Advanced Technologies, Inc., Columbia, MD					
	References: [Hinkula et al.(1990)]					
	NOTES:					
	<ul style="list-style-type: none"> • 38:9.6K: Also called 38:96K • 38:9.6K: Called 38:96K – epitope defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula et al.(1990)] • 38:9.6K: UK Medical Research Council AIDS reagent: ARP365 					
78 1B2C12	p24(273-292 IIB)	p24(149-154)	SILDIR	N	purified HIV-1	murine(IgG ₁)
	Donor: Advanced Technologies, Inc., Columbia, MD					
	References: [Janvier et al.(1990), Janvier et al.(1992)]					
	NOTES:					
	<ul style="list-style-type: none"> • 1B2C12: Reacts with HIV-1 and HIV-2 – mapped to aa281-286 through Pepscan method [Janvier et al.(1990)], and to aa273-292 through EIA pentadecapeptide method [Janvier et al.(1992)] 					
79 EF7	p24(273-302 HXB2)	p24(141-170)	IVRMYSPTSILDIRQGP-KEPFRDYVDRFYK	N	rec p24-15	murine(IgG _{1κ})
	Donor: Advanced Technologies, Inc., Columbia, MD					
	References: [Hinkula et al.(1990), Lundin et al.(1996)]					
	NOTES:					
	<ul style="list-style-type: none"> • EF7: Epitope defined by peptide blocking of binding to native protein – WB reactive with p53 [Hinkula et al.(1990)] • EF7: Included as a control [Lundin et al.(1996)] • EF7: UK Medical Research Council AIDS reagent: ARP366 					
80 30:3E5	p24(273-302 HXB2)	p24(141-170)	IVRMYSPTSILDIRQGP-KEPFRDYVDRFYK	N	rec p24-15	murine(IgG _{1λ})
	Donor: B. Wahren					
	References: [Hinkula et al.(1990)]					
	NOTES:					
	<ul style="list-style-type: none"> • 30:3E5: Epitope defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula et al.(1990)] • 30:3E5: UK Medical Research Council AIDS reagent: ARP367 					

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Mab ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
81 LH-104-K	p24(281-286 BRU) Donor: B. Wahren References: [Haahheim et al.(1991)]	p24(149-154)	SILDIR	N	Peptide	murine(IgG _{1κ})
	NOTES: <ul style="list-style-type: none"> • LH-104-K: Binds exclusively with p24 (not p55) [Haahheim et al.(1991)] • LH-104-K: UK Medical Research Council AIDS reagent: ARP322 					
82 LH-104-E	p24(275-280 BRU) Donor: B. Wahren References: [Haahheim et al.(1991)]	p24(143-148)	RMYSPT	N	Peptide	murine(IgG _{1κ})
	NOTES: <ul style="list-style-type: none"> • LH-104-E: Reacts with both p24 and p55 [Haahheim et al.(1991)] • LH-104-E: UK Medical Research Council AIDS reagent: ARP319 					
83 23A5G5	p24(285-304 BRU) Donor: B. Wahren References: [Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)]	p24(153-172)	IRQGPKPEPRDYVDRFY-KTL?	N	IIB p25	murine(IgG)
84 23A5G4	p24(285-304 IIB) Donor: B. Wahren References: [Janvier et al.(1990), Janvier et al.(1992), Janvier et al.(1996)]	p24(153-172)	IRQGPKPEPRDYVDRFY-KTL?	N	HIV-1 p24	murine(IgG ₁)
	NOTES: <ul style="list-style-type: none"> • 23A5G4: Mapped to aa209-217 through Pepsscan method [Janvier et al.(1990)] and to aa285-304 through EIA pentadecapeptide method (author's correction) [Janvier et al.(1992)] • 23A5G4: A few sera which were able to bind the linear sequence 178-192, but not sequence 288-302 in an indirect peptide ELISA inhibited the binding of 23A5G4 to the native p24 [Janvier et al.(1996)] 					
85 3D10G6	p24(285-304 IIB) Donor: B. Wahren References: [Janvier et al.(1990), Janvier et al.(1992)]	p24(153-172)	IRQGPKPEPRDYVDRFY-KTL?	N	purified HIV-1	murine(IgG ₁)
	NOTES: <ul style="list-style-type: none"> • 3D10G6: Epitope cross-reacts with HIV-1 and HIV-2 – mapped to aa260-267 through Pepsscan method [Janvier et al.(1990)] and to aa285-304 through EIA pentadecapeptide method (author's correction) [Janvier et al.(1992)] 					

HIV Monoclonal Antibodies

Mab ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
86 MO9.42.2	p24(285-310 BRU)	p24(153-178)	IRQGPKPEPRDYVDRFY- KTLRAEQAS	N	HIV2 ROD	murine(IgG)
	Donor: B. Wahren References: [Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)] NOTES: • MO9.42.2: Reacts with HIV-1s, HIV-2s, and SIVs in rec. protein ELISA [Robert-Hebmann et al.(1992b)]					
87 MO9.50.2	p24(285-310 BRU)	p24(153-178)	IRQGPKPEPRDYVDRFY- KTLRAEQAS	N	HIV2 ROD	murine(IgG)
	Donor: B. Wahren References: [Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)] NOTES: • MO9.50.2: Reacts with HIV-1s, HIV-2s, and SIVs in rec. protein ELISA [Robert-Hebmann et al.(1992b)]					
88 V10	p24(289-303 IIB)	p24(155-169)	QGPKEPFRDYVDRFY	N	virion	murine
	Donor: B. Wahren References: [Matsuo et al.(1992)] NOTES: • V10: Reacts with HIV-1 and SIV _{AGM} analogous peptides [Matsuo et al.(1992)]					
89 V107	p24(289-311 IIB)	p24(155-177)	QGPKEPFRDYVDRFYKT- LRAEQA	N	Virion	murine
	Donor: B. Wahren References: [Matsuo et al.(1992)] NOTES: • V107: Reacts with HIV, HIV-1 and SIV _{AGM} analogous peptides [Matsuo et al.(1992)]					
90 12-B-4	p24(293-302 BH10)	p24(161-170)	FRDYYVDRFYK	N	IIB virus	murine(IgG ₁)
	Donor: B. Wahren References: [Niedrig et al.(1988), Niedrig et al.(1989)] NOTES: • 12-B-4: Epitope is defined as the overlap between two HIV-1 reactive peptides – cross-reacts with HIV-2 ROD and SIV MAC [Niedrig et al.(1988), Niedrig et al.(1989)]					

HIV Monoclonal Antibodies

Mab ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
91 C5122	p24(293-302 HXB2) Donor: B. Wahren References: [Hinkula et al.(1990)] NOTES: • C5122: Defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula et al.(1990)]	p24(161-170)	FRDYYVDRFYK	N	Inact HIV lysate	murine(IgG _{1κ})
92 11D11F2	p24(303-317 IIIB) Donor: B. Wahren References: [Janvier et al.(1990), Janvier et al.(1992)] NOTES: • 11D11F2: Mapped to aa260-267 through Pepscan method [Janvier et al.(1990)] – and to aa303-317 through EIA pentadecapeptide method (author's correction), [Janvier et al.(1992)]	p24(171-185)	TLRAEQASQEVKNWM?	N	HIV-1 p24	murine(IgG ₁)
93 11C10B10	p24(303-317 IIIB) Donor: B. Wahren References: [Janvier et al.(1990), Janvier et al.(1992)] NOTES: • 11C10B10: Mapped to aa260-267 through Pepscan method [Janvier et al.(1990)] – and to aa303-317 through EIA pentadecapeptide method (author's correction) [Janvier et al.(1992)]	p24(171-185)	TLRAEQASQEVKNWM?	N	HIV-1 p24	murine(IgG ₁)
94 9A4C4	p24(303-317 IIIB) Donor: B. Wahren References: [Janvier et al.(1990), Janvier et al.(1992), Robert-Hebmann et al.(1992b), Robert-Hebmann et al.(1992a)] NOTES: • 9A4C4: Mapped to aa260-267 through Pepscan method [Janvier et al.(1990)] – and to aa303-317 through EIA pentadecapeptide method (author's correction)[Janvier et al.(1992)]	p24(170-188) TET	KTLRAEQASQEVKNWM- TET	N	IIIB p25	murine(IgG ₁)
95 BE3	p24(308-322 HXB2) Donor: B. Wahren References: [Hinkula et al.(1990)] NOTES: • BE3: Defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula et al.(1990)] • BE3: UK Medical Research Council AIDS reagent: ARP368	p24(176-190)	QASQEVKNWMTETLL	N	rec p24-15	murine(IgG _{1κ})

HIV Monoclonal Antibodies

MAb ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
96 L14	p24(308-322 HXB2) Donor: B. Wahren References: [Hinkula et al.(1990)] NOTES:	p24(176-190)	QASQEVKNWMTETLL	N	rec p24-15	murine(IgG _{1_κ})
	<ul style="list-style-type: none"> • L14: Defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula et al.(1990)] • L14: UK Medical Research Council AIDS reagent: ARP369 					
97 110/015	p24(313-322 IIIB) Donor: B. Wahren References: [Niedrig et al.(1991)] NOTES:	p24(181-190)	VKNWMTETLL	N	IIIB p24-β-gal fusion	murine(IgG ₁)
	<ul style="list-style-type: none"> • 110/015: Cross-reactive between HIV-1, HIV-2 and SIV MAC by multiple tests [Niedrig et al.(1991)] 					
98 108/03	p24(313-322 IIIB) Donor: B. Wahren References: [Niedrig et al.(1991)] NOTES:	p24(181-190)	VKNWMTETLL	N	IIIB p24-β-gal fusion	murine(IgG ₁)
	<ul style="list-style-type: none"> • 108/03: Cross-reactive between HIV-1, HIV-2 and SIV MAC by multiple tests [Niedrig et al.(1991)] 					
99 32:32K	p24(331-354 HXB2) Donor: B. Wahren References: [Hinkula et al.(1990)] NOTES:	p24(199-222)	KTILKALGPAATLEEMM-TACQGVG	N	rec p24-15	murine(IgG _{1λ})
	<ul style="list-style-type: none"> • 32:32K: Epitope defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula et al.(1990)] • 32:32K: UK Medical Research Council AIDS reagent: ARP368 					
100 C5200	p24(331-354 HXB2) Donor: B. Wahren References: [Hinkula et al.(1990)] NOTES:	p24(199-222)	KTILKALGPAATLEEMM-TACQGVG	N	Inact HIV-1 lysate	murine(IgG _{1_κ})
	<ul style="list-style-type: none"> • C5200: Epitope defined by peptide blocking of binding to native protein [Hinkula et al.(1990)] 					

HIV Monoclonal Antibodies

Mab ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
101 FH2	p24(333-347 HXB2) Donor: B. Wahren References: [Hinkula et al.(1990)] NOTES: • FH2: Defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula et al.(1990)]	p24(201-215)	ILKALGPAATLLEEMM	N	rec p24-15	murine(IgG _{1κ})
102 106/01	p24(343-362 IIB) Donor: B. Wahren References: [Niedrig et al.(1991)] NOTES: • 106/01: Cross-reactive between HIV-1, HIV-2 and SIV MAC by multiple tests [Niedrig et al.(1991)]	p24(211-230)	LEEMMTACQGVGGPGH- KARV	N	IIB p24- β -gal fusion	murine(IgG ₁)
103 LH-104-B	p24(357-362 BRU) Donor: B. Wahren References: [Haahheim et al.(1991)] NOTES: • LH-104-B: Binds exclusively with p55 (not p24), in contrast to LH-104-I [Haahheim et al.(1991)] • LH-104-B: UK Medical Research Council AIDS reagent: ARP308	p24(225-230)	GHKARV	N	Peptide	murine(IgG _{1κ})
104 LH-104-I	p24(358-363 BRU) Donor: B. Wahren References: [Haahheim et al.(1991)] NOTES: • LH-104-I: Binds exclusively with p24 (not p55), in contrast to LH-104-B [Haahheim et al.(1991)] • LH-104-I: UK Medical Research Council AIDS reagent: ARP321	p24(226-231)	HKARVL	N	Peptide	murine(IgG _{1κ})
105 LH-104-G	p24(363-368 BRU) Donor: B. Wahren References: [Haahheim et al.(1991)] NOTES: • LF-104-G: Reacts with both p24 and p55, in contrast to LH-104-I [Haahheim et al.(1991)] • LH-104-G: UK Medical Research Council AIDS reagent: ARP320	p24(231-236)	LAEAMS	N	Peptide	murine(IgG _{1κ})

HIV Monoclonal Antibodies

MAb ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
106 LH-104-A	p24(dis BRU)	p24(dis)	284 DIRQGP 289 + 351 QGVGGP 356	N	104 amino acid peptide	murine(IgG _{1_{rk}})
<p>Donor: B. Wahren References: [Haahheim et al.(1991)]</p> <p>NOTES:</p> <ul style="list-style-type: none"> • LF-104-A: Hexapeptide scans revealed two reactive p24 peptides – cross-competition studies indicated the region 270-286 [Haahheim et al.(1991)] • LH-104-A: UK Medical Research Council AIDS reagent: ARP307 						
107 EH12E1	p24(dis)	p24(dis)	DISCONTINUOUS, 193-227 and 253-267 LAI	N	Inact CBL-1	murine(IgG ₁)
<p>Donor: R. B. Ferns and R. S. Tedder References: [Ferns et al.(1987), Ferns et al.(1989)]</p> <p>NOTES:</p> <ul style="list-style-type: none"> • EH12E1: Reacted with p55 and p24 in WB [Ferns et al.(1987)] • EH12E1: UK Medical Research Council AIDS reagent: ARP313 						
108 LH-104-C	p24(dis BRU)	p24(dis)	288 GPKKEP 293 + 351 QGVGGP 356	N	104 amino acid peptide	murine(IgG _{3_{rk}})
<p>Donor: R. B. Ferns and R. S. Tedder References: [Haahheim et al.(1991)]</p> <p>NOTES:</p> <ul style="list-style-type: none"> • LF-104-C: Hexapeptide scans revealed two reactive p24 peptides – cross-competition studies indicated the region 351-373 [Haahheim et al.(1991)] • LH-104-C: UK Medical Research Council AIDS reagent: ARP309 						
109 71-31	p24	p24	?	N	HIV-1	human(IgG _{1λ})
<p>Donor: R. B. Ferns and R. S. Tedder References: [Gorny et al.(1989), Robinson Jr. et al.(1990a), Robinson Jr. et al.(1991), Spear et al.(1993), Gorny et al.(1998), Bandres et al.(1998)]</p> <p>NOTES:</p> <ul style="list-style-type: none"> • 71-31: Did not enhance HIV-1 III_B infection [Robinson Jr. et al.(1990a)] • 71-31: No enhancing or neutralizing activity [Robinson Jr. et al.(1991)] • 71-31: Did not mediate deposition of complement component C3 on HIV infected cells [Spear et al.(1993)] • 71-31: Included as a negative control in studies that demonstrate that CXCR4 can bind to gp120 in the absence of CD4-gp120 interactions, and that this binding can be enhanced by Env deglycosylation [Bandres et al.(1998)] • 71-31: NIH AIDS Research and Reference Reagent Program: 530 						

HIV Monoclonal Antibodies

MAb ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
110 V7-8	p24 Donor: R. B. Ferns and R. S. Tedder References: [Robinson Jr. et al.(1990a), Montefiori et al.(1991)] NOTES: • V7-8: Did not enhance HIV-1 IIIb infection [Robinson Jr. et al.(1990a)] • V7-8: Reacted with HIV-1IIIb, RF, and MN [Montefiori et al.(1991)] • V7-8: NIH AIDS Research and Reference Reagent Program: 381	p24	?	N	HIV-1 infection	murine(IgG _{3κ})
111 98-4.9	p24 Donor: R. B. Ferns and R. S. Tedder References: [Gorry et al.(1989)]	p24	?	N	HIV-1 infection	murine(IgG _{3λ})
112 98-4.3	p24 Donor: ? References: [Robinson Jr. et al.(1991)] NOTES: • 98-4.3: No enhancing or neutralizing activity [Robinson Jr. et al.(1991)]	p24	?	N	HIV-1 infection	human(IgG _{1λ})
113 3D3	p24(177-182 LAD) Donor: R. B. Ferns and R. S. Tedder References: [Ferns et al.(1987), Ferns et al.(1989)] NOTES: • 3D3: Most broadly reactive of all the antibodies in this study[Ferns et al.(1987)] • 3D3: UK Medical Research Council AIDS reagent: ARP314	p24(45-50)	EGATPQ?	N	Inact CBL-1	murine(IgG _{2b})
114 EB1A9	p24(253-267 LAD) Donor: R. B. Ferns and R. S. Tedder References: [Ferns et al.(1987), Ferns et al.(1989)] NOTES: • EB1A9: Reacted with both p55 and p24 – showed less than 75% homologous inhibition [Ferns et al.(1987)] • EB1A9: UK Medical Research Council AIDS reagent: ARP345	p24(121-135)	NPPIPVGEIYKRWII?	N	Inact CBL-1	murine(IgG ₁)
115 CD12B4	p24(303-317 LAD) Donor: R. B. Ferns and R. S. Tedder References: [Ferns et al.(1987), Ferns et al.(1989)] NOTES: • CD12B4: Reacted with both p55 and p24 – strain-specific binding [Ferns et al.(1987)] • CD12B4: UK Medical Research Council AIDS reagent: ARP346	p24(171-185)	TLRAEQASQEVKNWM?	N	Inact CBL-1	murine(IgG ₁)

HIV Monoclonal Antibodies

MAb ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
116 IE8G2	p24 Donor: R. B. Ferns and R. S. Tedder References: [Ferns et al.(1987), Ferns et al.(1989)] NOTES: <ul style="list-style-type: none"> • IE8G2: Reacted with both p55 and p24 – broadly reactive – showed less than 75% homologous inhibition [Ferns et al.(1987)] • IE8G2: UK Medical Research Council AIDS reagent: ARP347 	p24	?	N	Inact CBL-1	murine(IgG ₁)
117 human sera	p24 Donor: R. B. Ferns and R. S. Tedder References: [Binley et al.(1997)] NOTES: <ul style="list-style-type: none"> • Retention of anti-Env antibodies and loss of anti-Gag antibodies during progression was studied, and suggested to be the result of the loss of T-cell help and the unique ability of Env to stimulate B cells even in a backdrop of declining CD4 cells, because of the ability of Env to bind to the CD4 molecule [Binley et al.(1997)] 	p24			HIV-1 infection	human(IgG)
118 241-D	p24 Donor: Susan Zolla-Pazner (NYU Med. Center) References: [Gorny et al.(1989), Tyler et al.(1990), Robinson Jr. et al.(1991)] NOTES: <ul style="list-style-type: none"> • 241-D: An antibody by this name is available in the NIH AIDS Research and Reference Reagent Program, and they cite [Gorny et al.(1989), Tyler et al.(1990), Robinson Jr. et al.(1991)], but no p24 MAb by this name is discussed in these papers 	p24		N	HIV-1 infection	human(IgG ₁ λ)
119 183-H12-5C	p24 Donor: Bruce Chesebro and Kathy Wehrly, Rocky Mountain Laboratories, Hamilton, Montana References: [Chesebro et al.(1992), Toohey et al.(1995), Wehrly & Chesebro(1997)] NOTES: <ul style="list-style-type: none"> • 183-H12-5C: Cross-reacts with HIV1 and HIV-2 p24, and SIV p27 • 183-H12-5C: Used as antigen capture reagent for p24 ELISA [Chesebro et al.(1992), Toohey et al.(1995)] • 183-H12-5C: Cross-reacts with HIV1 and HIV-2 p24, and SIV p27 [Wehrly & Chesebro(1997)] • 183-H12-5C: NIH AIDS Research and Reference Reagent Program: 3537 	p24		N	unk	murine(IgG ₁)