

Table 8: Pol

| MAB ID | HXB2 Location | Author's Location | Sequence | Neutralizing | Immunogen | Species(Isotype) |
|--|---------------|--------------------------------|-------------------------------------|--------------|--|----------------------------|
| 188 polyclonal | Pol() | p55() | | no | HIV-1 Pr55gag VLP with anchored gp120 or V3+CD4 linear domains | Macaca mulatta() |
| <p>References: [Wagner (1998)]</p> <ul style="list-style-type: none"> • A VLP is a non-infectious virus-like particle self-assembled from HIV Pr55 gag – macaques were immunized with VLPs bound to either gp120 or V3+CD4 linear domains – gag and env CTL specific CTL were stimulated in each case, and Ab response to gag and gp120 and was elicited, but the gp120 neutralizing response occurred only with whole gp120, not V3+CD4 – despite the CTL and Ab response, immunized macaques were infected by intervenous challenge with SHIV chimeric challenge stock –Wagner98 | | | | | | |
| 189 RT7O | Pol() | RT(231-315) | | | rRT | murine(IgG ₁) |
| <p>Donor: B. Ferns and R. Tedder</p> <p>References: [Ferns (1991)]</p> <ul style="list-style-type: none"> • RT7O: Conformational epitope located centrally in the protein – inhibited RT enzyme activity and thus may bind close to the active site of the enzyme –Ferns91 • RT7O: UK Medical Research Council AIDS reagent: ARP381 | | | | | | |
| 190 RT7U | Pol() | RT(231-315) | | | rRT | murine() |
| <p>Donor: B. Ferns and R. Tedder</p> <p>References: [Ferns (1991)]</p> <ul style="list-style-type: none"> • RT7U: Has a conformational epitope – reacts with p66 and p51 in WB –Ferns91 • RT7U: UK Medical Research Council AIDS reagent: ARP380 | | | | | | |
| 191 1C12B1 | Pol() | RT(431-521) | | | rRT | murine() |
| <p>References: [Ferns (1991)]</p> <ul style="list-style-type: none"> • 1C12B1: Recognized both p66 and p51 in Western blot, binds to C terminus –Ferns91 • 1C12B1: UK Medical Research Council AIDS reagent: ARP384 | | | | | | |
| 192 8G4 | Pol(dis) | Integrase(22–31 + 82–101 HXB2) | MASDFNLPPV + GYIE-AEVIPAETGQETAYFI? | no | bacterial expressed integrase | murine(IgG ₁ κ) |
| <p>References: [Haugan (1995), Nilsen (1996)]</p> <ul style="list-style-type: none"> • 8G4: This MAb reacted strongly with peptides IN(12-31) and IN(22-42), and less strongly with peptide IN(82-101) – it did not react with a deletion mutant of positions 17–38 – this MAb inhibits end processing and DNA joining, but had little effect on integration activities –Nilsen96 • 8G4: MAb interferes with integrase binding to DNA –Haugan95 | | | | | | |

HIV Monoclonal Antibodies

| MAB ID | HXB2 Location | Author's Location | Sequence | Neutralizing | Immunogen | Species(Isotype) |
|---|---------------|-------------------|----------|--------------|-----------|----------------------------|
| 193 12 | Pol() | Integrase(1-58) | | no | rec IN | murine(IgG _{2a}) |
| <p>References: [Bizub-Bender (1994), Levy-Mintz (1996)]</p> <ul style="list-style-type: none"> • 12: BALB/c mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – the Zn finger motif is in the binding region – MAbs 12, 13 and 35 form a competition group –Bizub-Bender94 • 12: Used for the creation of single-chain variable antibody fragments (SFvs) for internal cellular expression – neutralization of IN activity prior to integration, whether the Ab is expressed in the nucleolus or the cytoplasm – relative binding affinity to IN: 12 > 17 = 33 > 21 > 4 –Levy-Mintz96 | | | | | | |
| 194 35 | Pol() | Integrase(1-58) | | no | rec IN | murine(IgG _{2b}) |
| <p>References: [Bizub-Bender (1994)]</p> <ul style="list-style-type: none"> • 35: There appears to be two IN Abs with similar names: MAb 35 and 35 –Barsov96,Bizub-Bender94 • 35: BALB/c mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – the Zn finger motif is in the binding region – MAbs 12, 13 and 35 form a competition group –Bizub-Bender94 | | | | | | |
| 195 13 | Pol() | Integrase(1-58) | | no | rec IN | murine(IgG ₁) |
| <p>References: [Bizub-Bender (1994)]</p> <ul style="list-style-type: none"> • 13: BALB/c mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – the Zn finger motif is in the binding region – MAbs 12, 13 and 35 form a competition group –Bizub-Bender94 | | | | | | |
| 196 14 | Pol() | Integrase(1-58) | | no | rec IN | murine(IgG ₁) |
| <p>References: [Bizub-Bender (1994)]</p> <ul style="list-style-type: none"> • 14: BALB/c mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – the Zn finger motif is in the binding region – MAbs 14 and 17 form a competition group –Bizub-Bender94 | | | | | | |
| 197 17 | Pol() | Integrase(1-58) | | no | rec IN | murine(IgG ₁) |
| <p>References: [Bizub-Bender (1994), Levy-Mintz (1996)]</p> <ul style="list-style-type: none"> • 17: BALB/c mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – the Zn finger motif is in the binding region – MAbs 14 and 17 form a competition group –Bizub-Bender94 • 17: Used for the creation of single chain variable antibody fragments (SFvs) for internal cellular expression – neutralization of IN activity prior to integration, whether the Ab is expressed in the nucleolus or the cytoplasm – relative binding affinity to IN: 12 > 17 = 33 > 21 > 4 –Levy-Mintz96 | | | | | | |

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|---|---------------|--------------------|----------|--------------|-----------|----------------------------|
| 198 21 | Pol() | Integrase(58-141) | | no | rec IN | murine(IgG _{2b}) |
| References: [Bizub-Bender (1994), Levy-Mintz (1996)] <ul style="list-style-type: none"> • 21: BALB/c mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized –Bizub-Bender94 • 21: Used for the creation of single chain variable antibody fragments (SFvs) for internal cellular expression – neutralization of IN activity prior to integration, whether the Ab is expressed in the nucleolus or the cytoplasm – relative binding affinity to IN: 12 > 17 = 33 > 21 > 4 –Levy-Mintz96 | | | | | | |
| 199 4 | Pol() | Integrase(141-172) | | no | rec IN | murine(IgG _{2b}) |
| References: [Bizub-Bender (1994), Levy-Mintz (1996)] <ul style="list-style-type: none"> • 4: There is another MAb with this ID that reacts with gp41 –Oldstone91,Bizub-Bender94 • 4: BALB/c mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – 4 has a low binding affinity –Bizub-Bender94 • 4: Used for the creation of single chain variable antibody fragments (SFvs) for internal cellular expression – neutralization of IN activity prior to integration, whether the Ab is expressed in the nucleolus or the cytoplasm – relative binding affinity to IN: 12 > 17 = 33 > 21 > 4 –Levy-Mintz96 | | | | | | |
| 200 16 | Pol(dis) | Integrase(Pol dis) | | no | rec IN | murine(IgG _{2a}) |
| References: [Bizub-Bender (1994)] <ul style="list-style-type: none"> • 16: BALB/c mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized –Bizub-Bender94 | | | | | | |
| 201 32 | Pol() | Integrase(259-288) | | no | rec IN | murine(IgG _{2b}) |
| References: [Bizub-Bender (1994)] <ul style="list-style-type: none"> • 32: BALB/c mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – MAbs 32 and 33 form a competition group –Bizub-Bender94 | | | | | | |
| 202 33 | Pol() | Integrase(259-288) | | no | rec IN | murine(IgG _{2b}) |
| References: [Bizub-Bender (1994), Levy-Mintz (1996)] <ul style="list-style-type: none"> • 33: BALB/c mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – MAbs 32 and 33 form a competition group –Bizub-Bender94 • 33: Used for the creation of single chain variable antibody fragments (SFvs) for internal cellular expression – neutralization of IN activity prior to integration, whether the Ab is expressed in the nucleolus or the cytoplasm – relative binding affinity to IN: 12 > 17 = 33 > 21 > 4 –Levy-Mintz96 | | | | | | |

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|---|---------------|-------------------|----------|--------------|--|----------------------------|
| 203 7C4 | Pol(dis) | RT(Pol dis) | | | rec vaccinia-RT WRRT | murine(IgG ₁) |
| References: [Chiba (1997)] <ul style="list-style-type: none"> • 7C4: Dose-dependent inhibition of polymerase activity of RT of strains IIB, Bru and IMS-1, but not HIV-2 strains GH-1 or LAV-2 or SIV strains MAC or MND –Chiba97 | | | | | | |
| 204 3D12 | Pol(dis) | RT(Pol dis) | | | rec vaccinia-RT WRRT | murine(IgG _{2a}) |
| References: [Chiba (1997)] <ul style="list-style-type: none"> • 3D12: There is an anti-Nef MAb that also has this name (see –Chiba97) | | | | | | |
| 205 6B9 | Pol(dis) | RT(Pol dis) | | | rec vaccinia-RT WRRT | murine(IgG _{2a}) |
| References: [Chiba (1997)] | | | | | | |
| 206 3F10 | Pol(dis) | RT(Pol dis) | | | rec vaccinia-RT WRRT | murine(IgG _{2a}) |
| References: [Chiba (1997)] | | | | | | |
| 207 RT-4 | Pol() | RT() | | no | ? | murine(IgG _{2b}) |
| References: [Li (1993), Gu (1996)] <ul style="list-style-type: none"> • RT-4: Increased nevirapine and delavirdine inhibition, no effect on AZT inhibition –Gu96 | | | | | | |
| 208 anti-HIV-1 RT | Pol() | RT() | | | ? | murine(IgG) |
| References: [di Marzo Veronese (1986), Maciejewski (1995), Wainberg & Gu(1995)] <ul style="list-style-type: none"> • anti-HIV-1 RT: Cloned heavy and light chains to express Fab intracellularly, preventing HIV infection <i>in vitro</i> – this MAb was broadly cross-reactive with clinical strains and even HIV-2 –Maciejewski95 • Commentary on Maciejewski <i>et al.</i> –Wainberg95 | | | | | | |
| 209 polyclonal | Pol() | RT() | | | DNA gag/pol, vif, and CMN160 vaccine | murine() |
| References: [Kim (1997)] <ul style="list-style-type: none"> • A gag/pol, vif or CMN160 DNA vaccine, when delivered in conjunction with the plasmid encoding the co-stimulatory molecules B7 and IL-12, gave a dramatic increase in both the cytotoxic and proliferative responses in mice, as well as Ab response detected by ELISA | | | | | | |