

Table 14: Nef

MAb ID	HXB2 Location	Author's Location	Sequence	Neutralizing	Immunogen	Species (Isotype)
981 4H4	Nef(1–33)	Nef(1–33 IIIB)	MGGKWSKSSVVGWPTVRER-MRRAPTVRERMRRRAEPAADG-VGAA		Vaccine	human(IgG1)
<p><b>Vaccine:</b> <i>Vector/type:</i> recombinant protein    <i>Strain:</i> IIIB    <i>HIV component:</i> Nef</p> <p><b>References:</b> [Otake (1994)]</p> <ul style="list-style-type: none"> <li>• 4H4: This MAb, elicited by vaccination with a Nef fusion protein, could not detect Nef protein on the cell surface – C-term anti-Nef Abs could [Otake (1994)]</li> </ul>						
982 polyclonal	Nef(9–24)	Nef(9–24)	SVIGWLTVRERMRRAE	no	Vaccine	murine(IgG)
<p><b>Vaccine:</b> <i>Vector/type:</i> DNA    <i>Strain:</i> BRU    <i>HIV component:</i> Nef</p> <p><b>References:</b> [Tahtinen (2001)]</p> <ul style="list-style-type: none"> <li>• BALB/c mice were immunized with a pBN-vector expressing HIV-1 nef, rev, or tat genes – DNA loaded onto gold microparticles was delivered using a gene gun, and DNA dissolved in saline was given intradermally or intramuscularly – Nef gene gun immunized mice showed the strongest and most long-lasting (6 months) Ab, CTL and proliferative responses – the highest IgG1/IgG2a ratio was observed in the gene gun immunized mice – three Ab binding sites were found in Nef using peptide mapping, although some sera reacted only to complete Nef – Rev- or-Tat immunized mice did not generate an Ab response [Tahtinen (2001)]</li> </ul>						
983 13/042	Nef(11–20)	Nef(11–24 BH10)	VGWPTVRERM		Vaccine	murine( )
<p><b>Vaccine:</b> <i>Vector/type:</i> recombinant protein    <i>HIV component:</i> Nef</p> <p><b>References:</b> [Schneider (1991)]</p> <ul style="list-style-type: none"> <li>• 13/042: Epitope mapped by overlapping decapeptides – core: TVRERM [Schneider (1991)]</li> </ul>						
984 13/035	Nef(15–24)	Nef(11–24 BH10)	TVRERMRRAE		Vaccine	murine( )
<p><b>Vaccine:</b> <i>Vector/type:</i> recombinant protein    <i>HIV component:</i> Nef</p> <p><b>References:</b> [Schneider (1991)]</p> <ul style="list-style-type: none"> <li>• 13/035: Epitope mapped by overlapping decapeptides – core: TVRERM [Schneider (1991)]</li> </ul>						
985 AM5C6	Nef(dis 28–43 + 78–92)	Nef(dis 28–43 BH10)	DGVGAASRDLEKHGAI + KA-AVDLSHFLK		Vaccine	murine( )
<p><b>Vaccine:</b> <i>Vector/type:</i> recombinant protein    <i>HIV component:</i> Nef</p> <p><b>References:</b> [Schneider (1991)]</p> <ul style="list-style-type: none"> <li>• AM5C6: Epitope mapped by overlapping decapeptides – core: SRDL – also reacts with Nef(78–92) [Schneider (1991)]</li> </ul>						

**Table of HIV MAbs**

986	AM5C6	Nef(dis 28–43 + 78–92)	Nef(dis 28–43 BH10)	DGVGAASRDLEKHGAI + KA-AVDLSHFLK		Vaccine	murine( )
		<b>Vaccine:</b> <i>Vector/type:</i> recombinant protein <i>HIV component:</i> Nef					
		<b>References:</b> [Schneider (1991)]					
		<ul style="list-style-type: none"> <li>• AM5C6: Epitope mapped by overlapping decapeptides – core: KAAVDL – also reacts with Nef(28–43) [Schneider (1991)]</li> </ul>					
987	25/03	Nef(30–43)	Nef(30–43 BH10)	VGAASRDLEKHGAI		Vaccine	murine( )
		<b>Vaccine:</b> <i>Vector/type:</i> recombinant protein <i>HIV component:</i> Nef					
		<b>References:</b> [Schneider (1991)]					
		<ul style="list-style-type: none"> <li>• 25/03: Epitope mapped by overlapping decapeptides – core: ASRDLEK [Schneider (1991)]</li> </ul>					
988	26/76	Nef(30–43)	Nef(30–43 BH10)	VGAASRDLEKHGAI		Vaccine	murine( )
		<b>Vaccine:</b> <i>Vector/type:</i> recombinant protein <i>HIV component:</i> Nef					
		<b>References:</b> [Schneider (1991)]					
		<ul style="list-style-type: none"> <li>• 26/76: Epitope mapped by overlapping decapeptides – core: SRDLEK [Schneider (1991)]</li> </ul>					
989	3F2	Nef(31–40)	Nef(31–40 BRU)	GAASRDLEKH		Vaccine	murine(IgG1)
		<b>Vaccine:</b> <i>Vector/type:</i> recombinant protein <i>Strain:</i> BRU <i>HIV component:</i> Nef					
		<b>References:</b> [Ovod (1992), Saito (1994), Ranki (1995)]					
		<ul style="list-style-type: none"> <li>• 3F2: Reacted with Nef from different HIV-1 strains (BRU, IIIB, RF, MN) [Ovod (1992)]</li> <li>• 3F2: Faintly cross-reactive with astrocytes of uninfected control samples [Ranki (1995)]</li> <li>• 3F2: UK Medical Research Council AIDS reagent: EVA3067.1</li> </ul>					
990	3D12	Nef(31–50)	Nef(31–50 BRU)	GAASRDLEKHGAISSNTAA		Vaccine	murine(IgG1)
		<b>Vaccine:</b> <i>Vector/type:</i> recombinant protein <i>Strain:</i> BRU <i>HIV component:</i> Nef					
		<b>References:</b> [Ovod (1992), Saito (1994), Ranki (1995)]					
		<ul style="list-style-type: none"> <li>• 3D12: There is an anti-RT MAb that also has this name (see [Chiba (1997)])</li> <li>• 3D12: Reacted with Nef from different HIV-1 strains (BRU, IIIB, RF, MN) [Ovod (1992)]</li> <li>• 3D12: Over-expression of Nef in astrocytes from postmortem pediatric CNS tissues [Saito (1994)]</li> <li>• 3D12: One of four antibodies used in combination to show HIV Nef protein expressed in astrocytes from 7/14 brain samples from HIV+ individuals – Nef expression associated with dementia [Ranki (1995)]</li> <li>• 3D12: UK Medical Research Council AIDS reagent: EVA3067.2</li> </ul>					
991	polyclonal	Nef(49–64)	Nef(49–64)	AATNAACAWLEAQEEE	no	Vaccine	murine(IgG)
		<b>Vaccine:</b> <i>Vector/type:</i> DNA <i>Strain:</i> BRU <i>HIV component:</i> Nef					
		<b>References:</b> [Tahtinen (2001)]					

- BALB/c mice were immunized with a pBN-vector expressing HIV-1 nef, rev, or tat genes – DNA loaded onto gold microparticles was delivered using a gene gun, and DNA dissolved in saline was given intradermally or intramuscularly – Nef gene gun immunized mice showed the strongest and most long-lasting (6 months) Ab, CTL and proliferative responses – the highest IgG1/IgG2a ratio was observed in the gene gun immunized mice – three Ab binding sites were found in Nef using peptide mapping, although some sera reacted only to complete Nef – Rev- or-Tat immunized mice did not generate an Ab response [Tahtinen (2001)]

992	3G12	Nef(51–71)	Nef(51–71 BRU)	TNAACAWLEAQEEEEVGFPVT	Vaccine	murine(IgG2a)	
<b>Vaccine:</b> <i>Vector/type:</i> recombinant protein <i>Strain:</i> BRU <i>HIV component:</i> Nef							
<b>References:</b> [Ovod (1992)]							
● 3G12: Reacted with Nef from different HIV-1 strains (BRU, IIIB, RF, MN) [Ovod (1992)]							
993	13/058	Nef(60–73)	Nef(60–73 BH10)	AQEEEEVGFPVTPQ	Vaccine	murine( )	
<b>Vaccine:</b> <i>Vector/type:</i> recombinant protein <i>HIV component:</i> Nef							
<b>References:</b> [Schneider (1991)]							
● 13/058: Epitope mapped by overlapping decapeptides – core: EEVGFP [Schneider (1991)]							
994	26/028	Nef(60–73)	Nef(60–73 BH10)	AQEEEEVGFPVTPQ	Vaccine	murine( )	
<b>Vaccine:</b> <i>Vector/type:</i> recombinant protein <i>HIV component:</i> Nef							
<b>References:</b> [Schneider (1991)]							
● 26/028: Epitope mapped by overlapping decapeptides – core: EEVGFPV [Schneider (1991)]							
995	2E3	Nef(61–80)	Nef(61–80 BRU)	QEEEEVGFPVTPQVPLRPMT	Vaccine	murine(IgG1)	
<b>Vaccine:</b> <i>Vector/type:</i> recombinant protein <i>Strain:</i> BRU <i>HIV component:</i> Nef							
<b>References:</b> [Ovod (1992), Nilsen (1996)]							
● 2E3: There are two MAbs with the name 2E3 – the other one binds to integrase [Nilsen (1996)]							
● 2E3: Two isomorphous forms of Nef were identified, 2E3 reacted with the p24 but not p27 form, and was strain specific (MN and BRU reactive, not IIIB or RF) [Ovod (1992)]							
996	polyclonal	Nef(66–97)	Nef(66–97 LAI)	VGFPVTPQVPLRPMTYKAAV- DLSHFLKEKGG	no	Vaccine	human(IgG)
<b>Vaccine:</b> <i>Vector/type:</i> lipopeptide <i>Strain:</i> LAI <i>HIV component:</i> Nef <i>Stimulatory Agents:</i> QS21							
<b>References:</b> [Pialoux (2001)]							
● 28 subjects were vaccinated with six HIV-1 peptides that were selected to be particularly rich in CTL epitopes, presented in lipopeptides with or without adjuvant QS21 – HIV-specific Ab responses were detected in 10/28, proliferative in 11/14, and CTL in 13/24 (54%) of testable volunteers – 10/28 had Ab responses to this peptide (N1), 11/24 had proliferative responses, and CTL responses were detected [Pialoux (2001)]							

**Table of HIV MAbs**

997	F14.11	Nef(83–88)	Nef(83–88)	AAVDLS	Vaccine	murine(IgG2a $\kappa$ )
<p><b>Vaccine:</b> <i>Vector/type:</i> peptide    <i>HIV component:</i> Nef</p> <p><b>References:</b> [De Santis (1991), Chang (1998)]</p> <ul style="list-style-type: none"> <li>• F14.11: The MAb was made to a six aa region of Nef that is similar to a region found in thymosin alpha 1 protein – the MAb binds to the natural Nef protein [De Santis (1991)]</li> <li>• F14.11: Used as a control in a study of Nef-specific single chain Abs constructed from AG11 and EH1 [Chang (1998)]</li> </ul>						
998	31/03	Nef(83–103)	Nef(82–103 BH10)	AAVDLSHFLKEKGGLEGLIHS	Vaccine	murine( )
<p><b>Vaccine:</b> <i>Vector/type:</i> recombinant protein    <i>HIV component:</i> Nef</p> <p><b>References:</b> [Schneider (1991)]</p> <ul style="list-style-type: none"> <li>• 31/03: Epitope mapped by overlapping decapeptides – mapping suggests complex epitope in this region [Schneider (1991)]</li> </ul>						
999	polyclonal	Nef(dis Nef)	Nef(dis 117–147 LAI)	TQGYFPDWQNYTPGPGVRYP-LTFGWYKLV	no Vaccine	human(IgG)
<p><b>Vaccine:</b> <i>Vector/type:</i> lipopeptide    <i>Strain:</i> LAI    <i>HIV component:</i> Nef    <i>Stimulatory Agents:</i> QS21</p> <p><b>Ab type:</b> Nef    <b>References:</b> [Pialoux (2001)]</p> <ul style="list-style-type: none"> <li>• 28 subjects were vaccinated with six HIV-1 peptides that were selected to be particularly rich in CTL epitopes, presented in lipopeptides with or without adjuvant QS21 – HIV-specific Ab responses were detected in 25/28, proliferative in 3/24, and CTL in 13/24 (54%) of testable volunteers – 20/28 had antibody responses to this particular peptide (N2), 3/24 had proliferative responses, and CTL responses were detected [Pialoux (2001)]</li> </ul>						
1000	polyclonal	Nef(118–133)	Nef(118–133)	QGYFPDWQNYTPGPGV	no Vaccine	murine(IgG)
<p><b>Vaccine:</b> <i>Vector/type:</i> DNA    <i>Strain:</i> BRU    <i>HIV component:</i> Nef</p> <p><b>References:</b> [Tahtinen (2001)]</p> <ul style="list-style-type: none"> <li>• BALB/c mice were immunized with a pBN-vector expressing HIV-1 nef, rev, or tat genes – DNA loaded onto gold microparticles was delivered using a gene gun, and DNA dissolved in saline was given intradermally or intramuscularly – Nef gene g unimmunized mice showed the strongest and most long-lasting (6 months) Ab, CTL and proliferative responses – the highest IgG1/IgG2a ratio was observed in the gene gun immunized mice – three Ab binding sites were found in Nef using peptide mapping, although some sera reacted only to complete Nef – Rev- or-Tat immunized mice did not generate an Ab response [Tahtinen (2001)]</li> </ul>						
1001	F1	Nef(148–157)	Nef(148–157 IIIB)	VEPDKVEEAN		murine(IgM)
<p><b>References:</b> [Fujii (1993), Otake (1994), Fujii (1996c), Fujii (1996b)]</p> <ul style="list-style-type: none"> <li>• F1: The C-term end of Nef is accessible to Abs at the cell surface – stained IIIB/M10, but not MN/M10, cells [Otake (1994), Fujii (1993)]</li> <li>• F1: Insect cells expressing myristylated Nef proteins on their cell surface can induce cytolysis of unstimulated CD4+ cells – this response is not due to MHC restricted CTL activity – the cell surface of Nef expressing insect cells carry Nef that can be recognized by MAbs E7 and E9 but not F1 [Fujii (1996c)]</li> <li>• F1: A carboxy-terminal domain of Nef on the cell surface induces cytolysis of CD4+ T cells [Fujii (1996b)]</li> </ul>						

Table of HIV MAbs

1002	2F2	Nef(151–170)	Nef(151–170 BRU)	DKVEEANKGENTSLLHPVSL	Vaccine	murine(IgG1)
<p><b>Vaccine:</b> <i>Vector/type:</i> recombinant protein    <i>HIV component:</i> Nef</p> <p><b>References:</b> [Ovod (1992), Saito (1994), Ranki (1995)]</p> <ul style="list-style-type: none"> <li>• 2F2: Strain specific (MN and BRU reactive, not IIIB or RF) [Ovod (1992)]</li> <li>• 2F2: Over-expression of Nef in astrocytes from postmortem pediatric CNS tissue [Saito (1994)]</li> <li>• 2F2: One of four antibodies used in combination to show HIV Nef protein expressed in astrocytes from 7/14 brain samples from HIV+ individuals – Nef expression associated with dementia [Ranki (1995)]</li> <li>• 2F2: UK Medical Research Council AIDS reagent: EVA3067.3</li> </ul>						
1003	E9	Nef(158–181)	Nef(158–206 IIIB)	KGENTSLLHPVSLHGMDDPER-EVL		murine(IgM)
<p><b>References:</b> [Fujii (1993), Otake (1994), Fujii (1996c), Fujii (1996b)]</p> <ul style="list-style-type: none"> <li>• E9: The C-term end of Nef is accessible to Abs at the cell surface – stained IIIB/M10, but not MN/M10, cells [Otake (1994), Fujii (1993)]</li> <li>• E9: A carboxy-terminal domain of Nef on the cell surface induces cytolysis of CD4+ T cells [Fujii (1996b)]</li> <li>• E9: Insect cells expressing myristylated Nef proteins on their cell surface can induce cytolysis of unstimulated CD4+ cells – this response is not due to MHC restricted CTL activity – the cell surface of Nef expressing insect cells carry Nef that can be recognized by MAbs E7 and E9 but not F1 [Fujii (1996c)]</li> </ul>						
1004	3E6	Nef(161–180)	Nef(161–180 BRU)	NTSLLHPVSLHGMDDPEREV	Vaccine	murine(IgG1)
<p><b>Vaccine:</b> <i>Vector/type:</i> recombinant protein    <i>Strain:</i> BRU    <i>HIV component:</i> Nef</p> <p><b>References:</b> [Ovod (1992), Saito (1994), Ranki (1995)]</p> <ul style="list-style-type: none"> <li>• 3E6: Reacted with Nef from different HIV-1 strains (BRU, IIIB, RF, MN) [Ovod (1992)]</li> <li>• 3E6: Faintly cross-reactive with astrocytes of uninfected control samples [Ranki (1995)]</li> <li>• 3E6: UK Medical Research Council AIDS reagent: EVA3067.4</li> </ul>						
1005	2A3	Nef(171–190)	Nef(171–190 BRU)	HGMDDPEREVLEWRFD SRLA	Vaccine	murine(IgG1)
<p><b>Vaccine:</b> <i>Vector/type:</i> recombinant protein    <i>Strain:</i> BRU    <i>HIV component:</i> Nef</p> <p><b>References:</b> [Ovod (1992)]</p> <ul style="list-style-type: none"> <li>• 2A3: Reacted with Nef from different HIV-1 strains (BRU, IIIB, MN, but not RF) [Ovod (1992)]</li> </ul>						
1006	2E4	Nef(171–190)	Nef(171–190 BRU)	HGMDDPEREVLEWRFD SRLA	Vaccine	murine(IgG1)
<p><b>Vaccine:</b> <i>Vector/type:</i> recombinant protein    <i>Strain:</i> BRU    <i>HIV component:</i> Nef</p> <p><b>References:</b> [Ovod (1992)]</p> <ul style="list-style-type: none"> <li>• 2EA: Reacted with Nef from different HIV-1 strains (BRU, IIIB, MN but not RF) [Ovod (1992)]</li> </ul>						
1007	3A2	Nef(171–190)	Nef(171–190 BRU)	HGMDDPEREVLEWRFD SRLA	Vaccine	murine(IgG1)
<p><b>Vaccine:</b> <i>Vector/type:</i> recombinant protein    <i>Strain:</i> BRU    <i>HIV component:</i> Nef</p>						

**Table of HIV MAbs**

**References:** [Ovod (1992), Saito (1994), Ranki (1995)]

- 3A2: Reacted with Nef from different HIV-1 strains (BRU, IIIB, RF, MN) [Ovod (1992)]
- 3A2: Over-expression of Nef in astrocytes from postmortem pediatric CNS tissue [Saito (1994)]
- 3A2: One of four antibodies used in combination to show HIV Nef protein expressed in astrocytes from 7/14 brain samples from HIV+ individuals – Nef expression associated with dementia [Ranki (1995)]
- 3A2: UK Medical Research Council AIDS reagent: EVA3067.5

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1008	2H12	Nef(171–190)	Nef(171–190 BRU)	HGMDPPEREVLEWRFD SRLA	Vaccine	murine(IgG1)
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**Vaccine:** *Vector/type:* recombinant protein    *Strain:* BRU    *HIV component:* Nef

**Ab type:** Nef    **References:** [Ovod (1992), Saito (1994), Ranki (1995)]

- 2H12: Reacted with Nef from different HIV-1 strains (BRU, IIIB, RF, MN) [Ovod (1992)]
- 2H12: Over-expression of Nef in astrocytes from postmortem pediatric CNS tissue [Saito (1994)]
- 2H12: One of four antibodies used in combination to show HIV Nef protein expressed in astrocytes from 7/14 brain samples from HIV+ individuals – Nef expression associated with dementia [Ranki (1995)]

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1009	NF1A1	Nef(173–206)	Nef(173–206)	MDDPEREVLEWRFD SRLAFH- HVARELHPEYFKNC		murine( )
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**References:** [Kaminchik (1990)]

- NF1A1: Recognizes the Nef protein of the two isolates BH10 and LAV1 – low affinity [Kaminchik (1990)]

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1010	polyclonal	Nef(182–205)	Nef(182–205 LAI)	EWRFD SRLAFHHVARELHPEY- FKN	no Vaccine	human(IgG)
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**Vaccine:** *Vector/type:* lipopeptide    *Strain:* LAI    *HIV component:* Nef    *Stimulatory Agents:* QS21

**References:** [Pialoux (2001)]

- 28 subjects were vaccinated with six HIV-1 peptides that were selected to be particularly rich in CTL epitopes, presented in lipopeptides with or without adjuvant QS21 – HIV-specific Ab responses were detected in 0/28, proliferative in 9/14, and CTL were detected in some of the testable volunteers [Pialoux (2001)]

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1011	E7	Nef(192–206)	Nef(192–206 IIIB)	HHVARELHPEYFKNC		murine(IgM)
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**References:** [Fujii (1993), Otake (1994), Fujii (1996c), Fujii (1996a), Fujii (1996b), Fujii (1996d)]

- E7: The C-term end of Nef is accessible to Abs at the cell surface – stained IIIB/M10, but not MN/M10, cells [Otake (1994), Fujii (1993)]
- E7: Insect cells expressing myristylated Nef proteins on their cell surface can induce cytolysis of unstimulated CD4+ cells – this response is not due to MHC restricted CTL activity – the cell surface of Nef expressing insect cells carry Nef that can be recognized by MAbs E7 and E9 but not F1 [Fujii (1996c)]
- E7: Nef forms a homomeric oligomerizing structure, and using E7 and membrane immunofluorescence or immunoelectron microscopy, was shown to clusters on the surface of HIV-1 infected CD4+ cells [Fujii (1996a)]
- E7: A carboxy-terminal domain of Nef on the cell surface induces cytolysis of CD4+ T cells [Fujii (1996b)]

- E7: Soluble Nef inhibits proliferation of CD4+ cells, and Nef cross-linking by MAbs may induce anti-CD4 cytotoxic activity – sera from HIV+ individuals contain soluble Nef, thus this may be important for immune dysfunction and disease progression [Fujii (1996d)]

1012	AE6	Nef(194–206)	Nef(LAI)	VARELHPEYFKNC	Vaccine	murine(IgG1 $\kappa$ )
	<b>Vaccine:</b>	<i>Vector/type:</i> recombinant protein		<i>HIV component:</i> Nef		
		<b>Ab type:</b> C-term		<b>Donor:</b> Frank Jirik, Centre for Molecular Med and Therapeutics, U. B. C., Vancouver, B. C. Canada		
		<b>References:</b> [Chang (1998)]				
		<ul style="list-style-type: none"> <li>• AE6: The light and heavy chains of three MABs (AG11, AE6, EH1) specific to C-terminus of NEF were cloned and variable regions sequenced – the complementarity determining regions (CDR) of AG11 and AE6 were highly related (95.1% at the DNA level) and bound LAI Nef, but not SF2 Nef – EH1 bound to SF2 and LAI and cross-competed AG11 and AE6 but had a distinctive CDR (57.9% similar to AG11) – single chain Abs were constructed from AG11 and EH1 [Chang (1998)]</li> </ul>				
1013	AG11	Nef(194–206)	Nef(LAI)	VARELHPEYFKNC	Vaccine	murine(IgG1 $\kappa$ )
	<b>Vaccine:</b>	<i>Vector/type:</i> recombinant protein		<i>HIV component:</i> Nef		
		<b>Ab type:</b> C-term		<b>Donor:</b> Frank Jirik, Centre for Molecular Med and Therapeutics, U. B. C., Vancouver, B. C. Canada		
		<b>References:</b> [Chang (1998)]				
		<ul style="list-style-type: none"> <li>• AG11: The light and heavy chains of three MABs (AG11, AE6, EH1) specific to C-terminus of NEF were cloned and variable regions sequenced – the complementarity determining regions (CDR) of AG11 and AE6 were highly related (95.1% at the DNA level) and bound LAI Nef, but not SF2 Nef – EH1 bound to SF2 and LAI and cross-competed AG11 and AE6 but had a distinctive CDR (57.9% similar to AG11) – single chain Abs were constructed from AG11 and EH1 and subcloned into a eukaryotic expression vector with a green fluorescent protein marker to allow intracellular expression – the single chain Abs bind Nef intracellularly and may be useful to better understand the role of Nef and as a gene therapy model [Chang (1998)]</li> </ul>				
1014	EH1	Nef(194–206)	Nef(SF2)	MARELHPEYYKDC	Vaccine	murine(IgG1 $\kappa$ )
	<b>Vaccine:</b>	<i>Vector/type:</i> recombinant protein		<i>HIV component:</i> Nef		
		<b>Ab type:</b> C-term		<b>Donor:</b> Frank Jirik, Centre for Molecular Med and Therapeutics, U. B. C., Vancouver, B. C. Canada		
		<b>References:</b> [Chang (1998)]				
		<ul style="list-style-type: none"> <li>• EH1: The light and heavy chains of three MABs (AG11, AE6, EH1) specific to C-terminus of NEF were cloned and variable regions sequenced – the complementarity determining regions (CDR) of AG11 and AE6 were highly related (95.1% at the DNA level) and bound LAI Nef, but not SF2 Nef – EH1 bound to SF2 and LAI and cross-competed AG11 and AE6 but had a distinctive CDR (57.9% similar to AG11) – single chain Abs were constructed from AG11 and EH1 and subcloned into a eukaryotic expression vector with a green fluorescent protein marker to allow intracellular expression – the single chain Abs bind Nef intracellularly and may be useful to better understand the role of Nef and as a gene therapy model [Chang (1998)]</li> </ul>				

**Table of HIV MAbs**

1015	6.1	Nef(dis 167–182, 191–205, 193–206)	Nef(dis JR-CSF)			murine( )
<p><b>References:</b> [Ranki (1995)]</p> <ul style="list-style-type: none"> <li>• 6.1: Raised against CNS primary isolates, stains astrocytes more densely than other Nef MAbs – Nef expression associated with dementia [Ranki (1995)]</li> <li>• 6.1: NIAID Repository number 1123 [Ranki (1995)]</li> </ul>						
1016	AE6	Nef( )	Nef( )			murine( )
<p><b>Ab type:</b> C-term      <b>Donor:</b> James Hoxie, Div of AIDS, NIAID, NIH</p> <p><b>References:</b> [Greenway (1994), Tornatore (1994)]</p> <ul style="list-style-type: none"> <li>• AE6: NIH AIDS Research and Reference Reagent Program: 709</li> </ul>						
1017	NF2B2	Nef( )	Nef(20–78 BH10)		Vaccine	murine( )
<p><b>Vaccine:</b> <i>Vector/type:</i> recombinant protein      <i>Strain:</i> BH10      <i>HIV component:</i> Nef</p> <p><b>References:</b> [Kaminchik (1990)]</p> <ul style="list-style-type: none"> <li>• NF2B2: Recognizes the Nef protein of the two isolates BH10 and LAV1 [Kaminchik (1990)]</li> <li>• NF2B2: NIH AIDS Research and Reference Reagent Program: 456</li> </ul>						
1018	NF3A3	Nef( )	Nef(20–78 BH10)		Vaccine	murine( )
<p><b>Vaccine:</b> <i>Vector/type:</i> recombinant protein      <i>Strain:</i> BH10      <i>HIV component:</i> Nef</p> <p><b>References:</b> [Kaminchik (1990)]</p> <ul style="list-style-type: none"> <li>• NF3A3: Recognizes the Nef protein of the two isolates BH10 and LAV1 – low affinity [Kaminchik (1990)]</li> </ul>						
1019	NF8B4	Nef(dis)	Nef(dis BH10)		Vaccine	murine( )
<p><b>Vaccine:</b> <i>Vector/type:</i> recombinant protein      <i>Strain:</i> BH10      <i>HIV component:</i> Nef</p> <p><b>References:</b> [Kaminchik (1990)]</p> <ul style="list-style-type: none"> <li>• NF8B4: Does not recognize Nef CNBr cleavage products – recognizes intact BH10 Nef but not LAV1 Nef [Kaminchik (1990)]</li> </ul>						