Table 7:  $\mathbf{Rev}$ 

MAb ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
210 4G9	Rev(5-15)	Rev(5-15)		L P (when lipidated)	E. coli expressed r Rev	murine
	Donor: AGMED, Inc., Bedford, MA USA References: [Jensen et al.(1997)] NOTES:  • 4G9: Mapped binding location by prof	rd, MA USA 97)] 2ation by prot	<ul> <li>onor: AGMED, Inc., Bedford, MA USA</li> <li>eferences: [Jensen et al.(1997)]</li> <li>OTES:</li> <li>4G9: Mapped binding location by protein footprinting [Jensen et al.(1997)]</li> </ul>	[997]		
211 10.1	Rev(33-48)  Donor: AGMED, Inc., Bedford, MA USA  References: [Ovod et al.(1992), Ranki et al.(1994), Ranki et al.(1995)]  NOTES:  • 10.1: Binds to the RRE – polyclonal anti-Rev Ab detected Rev in a one of these was positive using 10.1, suggesting most Rev was bou	rd, MA USA 2), Ranki et a polyclonal a using 10.1, s	(33-48)  nor: AGMED, Inc., Bedford, MA USA erences: [Ovod et al.(1992), Ranki et al.(1994), Ranki et al.(1995)]  TES:  10.1: Binds to the RRE – polyclonal anti-Rev Ab detected Rev in astrocytes in 4/5 brain autopsy samples, but only one of these was positive using 10.1, suggesting most Rev was bound to RRE [Ranki et al.(1995)]	rocytes in 4/5 brain aut to RRE [Ranki et al.(1)	opsy samples, but only 995)]	
212 3H6	Rev(38-44) Rev(38-43) RRNRRR  Donor: AGMED, Inc., Bedford, MA USA  References: [Orsini et al.(1995)]  NOTES:  • 3H6: There is another MAb with this ID that recogniz • 3H6: Directed against nucleolar localization/RRE bin a RRNRRR Rev deletion mutant [Orsini et al.(1995)]	Rev(38-43) rd, MA USA )5)] Ab with this II cleolar localiz mutant [Orsin	(38-44)  Rev(38-43) RRNRRR  nor: AGMED, Inc., Bedford, MA USA  erences: [Orsini et al.(1995)]  TES:  3H6: There is another MAb with this ID that recognizes gp41 [Pinter et al.(1995)]  3H6: Directed against nucleolar localization/RRE binding domain – antigenic domain a RRNRRR Rev deletion mutant [Orsini et al.(1995)]	nain	rec Rev tentative, MAb failed to bind	$\operatorname{murine}(\operatorname{IgG}_{1\kappa})$
213 Ab2	Rev(32-49 BRU)  Rev(32-49) EGTRQARRNRRR  QR  Donor: Tony Lowe and Jonathan Karn, MRC Center, Cambridge References: [Henderson & Percipalle(1997)]  NOTES:  • Ab2: The Ab2 binding site overlaps the nuclear localization HIV RNA – the cellular protein importin-β can bind in this to importin-β, but not to the importin-β-importin-α dimer [H	Rev(32-49) han Karn, Ml ercipalle(199) ite overlaps to protein importin-,	Rev(32-49) EGTRQARRNRRRWRER-  OR  OR  OR  Tes: Tony Lowe and Jonathan Karn, MRC Center, Cambridge  erences: [Henderson & Percipalle(1997)]  TES:  Ab2: The Ab2 binding site overlaps the nuclear localization signal – Ab2 binding to Rev was blocked by bound HIV RNA – the cellular protein importin-β can bind in this Arg rich region – atypically, the Rev binds specifically to importin-β, but not to the importin-β-importin-α dimer [Henderson & Percipalle(1997)]	<ul> <li>Ab2 binding to Rev region – atypically, the</li> <li>&amp; Percipalle(1997)]</li> </ul>	rec Rev  o Rev was blocked by bound lly, the Rev binds specifically	$(\operatorname{IgG}_1)$

## **HIV Monoclonal Antibodies**

	216 Ab4 I		215 8E7 I		214 9G2 I	MAb ID I
Donor: Tony Lowe and Jonathan Karn, MRC Center, Cambridge References: [Henderson & Percipalle(1997)]  NOTES:  Ab4: The binding site overlaps the nuclear export signal – Ab2 binding was not blocked by bound HIV RNA and	Rev(72-91 BRU)	Donor: Anne Marie Szilvay References: [Kalland et al.(1) NOTES:  • 8E7: 8E7 worked in indir Rev in several compartme with host cell factors known ucleoplasmic compartme • 8E7: Peptide interaction 1 • 8E7: HIV-1 RNA and Re different speckles with th suggesting Rev and HIV-	Rev(70-84)	<ul> <li>Donor: Anne Marie Szilvay</li> <li>References: [Kalland et al.(1994a), Jensen et al.(1997)]</li> <li>NOTES: <ul> <li>9G2: Worked in indirect immunofluorescence and a Rev throughout the cell [Kalland et al.(1994a)]</li> <li>9G2: Peptide interaction mapped to aa 70-84, 75-88</li> <li>9G2: Called 9G2G4D6E8: UK Medical Research C</li> </ul> </li> </ul>	Rev(70-84)	Location
han Karn, MRC ercipalle(1997)] erlaps the nucles	Rev(72-91)	994a), Kalland et ect immunofluora ct immunofluora the ints including the wn to assemble or ents. [Kalland et mapped to aa 70-v localize to the e nucleoplasm the RNAs interact:	Rev(70-84)	994a), Jensen et : immunofluoresci Kalland et al.(199 mapped to aa 70: S: UK Medical R	Rev(70-84)	WEAU
Center, Cambridge	PLQLPPLERLTLDCNED-	<ul> <li>Donor: Anne Marie Szilvay</li> <li>References: [Kalland et al.(1994a), Kalland et al.(1994b), Szilvay et al.(1995), Jensen et al.(1997), Boe et al.(1998)]</li> <li>NOTES:</li> <li>8E7: 8E7 worked in indirect immunofluorescence and also detected Rev in WB assays – used to detect localization of Rev in several compartments including the nucleoli, nucleoplasm, perinuclear zone, and cytoplasm – Rev co-localized with host cell factors known to assemble on nascent transcripts – Rev shuttles continuously between cytoplasmic and nucleoplasmic compartments. [Kalland et al.(1994a), Kalland et al.(1994b), Szilvay et al.(1995)]</li> <li>8E7: Peptide interaction mapped to aa 70-84, 75-88 – protein footprint to 65-88 [Jensen et al.(1997)]</li> <li>8E7: HIV-1 RNA and Rev localize to the same region in the nucleoplasm, but the splicing factor SC-35 localizes in different speckles with the nucleoplasm than Rev – intron containing β-globin was distributed similarly to HIV-1, suggesting Rev and HIV-1 RNAs interact at putative sites of mRNA transcriptions and splicing [Boe et al.(1998)]</li> </ul>	PVPLQLPPLERLTLD	nor: Anne Marie Szilvay  ferences: [Kalland et al.(1994a), Jensen et al.(1997)]  NTES:  9G2: Worked in indirect immunofluorescence and also detected Rev in WB assays – used to detect Rev throughout the cell [Kalland et al.(1994a)]  9G2: Peptide interaction mapped to aa 70-84, 75-88 – protein footprint to 65-88 [Jensen et al.(1997)]  9G2: Called 9G2G4D6E8: UK Medical Research Council AIDS reagent: ARP3058	PVPLQLPPLERLTLD	Sequence
was not blocked		5), Jensen et al.() in WB assays – us lear zone, and cy ttles continuously 4b), Szilvay et al o 65-88 [Jensen o n, but the splicin rglobin was distr scriptions and sp		l ≈ ns		Neutralizing
l by bound HIV RNA a	rec Rev	t al.(1997), Boe et al.(1998)] s – used to detect localization of al cytoplasm – Rev co-localized lously between cytoplasmic and et al.(1995)] ssen et al.(1997)] slicing factor SC-35 localizes in distributed similarly to HIV-1, and splicing [Boe et al.(1998)]	E. coli expressed r Rev	used to detect localization of en et al.(1997)]	E. coli expressed r Rev	Immunogen
nd	$(\operatorname{IgG}_1)$	of sed and sed	$\mathrm{murine}(\mathrm{IgG}_{2a\kappa})$	of	$\mathrm{murine}(\mathrm{Ig}\mathrm{G}_{2a\kappa})$	Species(Isotype)

MAb ID	Location	WEAU	Sequence	Neutralizing	Immunogen	Species(Isotype)
217 3G4	Rev(90-116) Rev ?  Donor: Tony Lowe and Jonathan Karn, MRC Center, Cambridge References: [Orsini et al.(1995)]  NOTES:  • 3G4: Binds to a region that can be dispensed with and still re	Rev than Karn, MRC ( 95)] hat can be dispense	ev(90-116)  Rev ? rec Rev onor: Tony Lowe and Jonathan Karn, MRC Center, Cambridge efterences: [Orsini et al.(1995)]  OTES:  3G4: Binds to a region that can be dispensed with and still retain Rev function [Orsini et al.(1995)]	tion [Orsini et al	rec Rev protein .(1995)]	$\operatorname{murine}(\operatorname{IgG}_{1\kappa})$
218 1G10	Rev(95-105) Re  Donor: Anne Marie Szilvay  References: [Kalland et al.(1994a)]  NOTES:	Rev(96-105) 994a)]	GVGSPQILVE		E. coli expressed r Rev	$\mathrm{murine}(\mathrm{Ig}\mathrm{G}_{2b\kappa})$
	<ul> <li>1G10: Bound Rev in indirect immunofluor throughout the cell [Kalland et al.(1994a)]</li> <li>1G10: Peptide interaction mapped to aa et al.(1997)]</li> <li>1G10: Called IG10F4: UK Medical Resea</li> </ul>	irect immunofluore and et al.(1994a)] on mapped to aa JK Medical Resear	1G10: Bound Rev in indirect immunofluorescence and also detected Rev in WB – used to detect localization of Rev throughout the cell [Kalland et al.(1994a)] 1G10: Peptide interaction mapped to aa 91-105, 96-110 – protein footprint to aa 10-20, and 95-105 [Jensen et al.(1997)] 1G10: Called IG10F4: UK Medical Research Council AIDS reagent: ARP3060	n WB – used to control of the total of the t	ed to detect localization of Rev aa 10-20, and 95-105 [Jensen	в «X
219 1G7	Rev(95-105) Rev(96-105) GVG:  Donor: Anne Marie Szilvay  References: [Kalland et al.(1994a), Jensen et al.(1997)]	Rev(96-105) 994a), Jensen et al	GVGSPQILVE L(1997)]		E. coli expressed r Rev	$\mathrm{murine}(\mathrm{Ig}\mathrm{G}_{2b\kappa})$
	<ul> <li>1G7: Worked in indirect immunofluoresc throughout the cell [Kalland et al.(1994a)]</li> <li>1G7: Peptide interaction mapped to aa 91-</li> </ul>	t immunofluoresce and et al.(1994a)] mapped to aa 91-1	1G7: Worked in indirect immunofluorescence and also detected Rev in WB – used to detect localization of Rev throughout the cell [Kalland et al.(1994a)] 1G7: Peptide interaction mapped to aa 91-105, 96-110 – protein footprint to aa 95-105 [Jensen et al.(1997)]	WB – used to de to aa 95-105 [Jer	d to detect localization of Re (1) Jensen et al.(1997)	*
220 Ab3	Rev(102-116 BRU) Rev(102-116) ILVESP Donor: Tony Lowe and Jonathan Karn, MRC, Cambridge References: [Henderson & Percipalle(1997)] NOTES:	Rev(102-116) than Karn, MRC, ( ercipalle(1997)]	ILVESPTVLESDKTE Cambridge		rec Rev	$(\operatorname{IgG}_1)$
	<ul> <li>Ab3: This binding site is &amp; Percipalle(1997)]</li> </ul>	at the carboxy end	Ab3: This binding site is at the carboxy end of Rev – Ab3 binding was not blocked by & Percipalle(1997)]	blocked by boun	y bound HIV RNA [Henderson	ñ
221 2G2	Rev(dis) Pev(dis) DISCON Donor: Tony Lowe and Jonathan Karn, MRC, Cambridge References: [Orsini et al.(1995)]	Rev(dis) than Karn, MRC, ( 95)]	DISCONTINUOUS Cambridge		rec Rev protein	$\operatorname{murine}(\operatorname{Ig} G_{1\kappa})$
	• 2G2: Does not bind to any of a set of glutathione S-transfer	y of a set of glutath	2G2: Does not bind to any of a set of glutathione S-transferase (GST) Rev fusion proteins, or to Rev in a RIPA buffer,	usion proteins, or	to Rev in a RIPA buffer	r,