Seq ID No.	LINE	CDR2	FR3	CDR3	FR4
70		AISGSGGSTYYADSVKG	RFTISRDNSKNTLYLQMNSLRAEDTAVYYCAK	VLMVYA DY	WGQGTLVTVSS
71	23B5	T-----DN---------	----------	KF------ML--	----------
72	25G4	T------N---------	----------	KF------ML--	----------
73		VIWYDGSNKYYADSVKG	RFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR	YYYGMDV	WGQGTTVTVSS
74	30A4	-------D---------	----------	ETGPLKL-------	----------
75		VIWYDGSNKYYADSVKG	RFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR	IAA GMDV	WGQGTTVTVSS
76	27A6	L--S---D---------	----------	AIAALYYYY----	----------
77	28B12	L--N----------	----------	AIAALYYYY----	--H-------
78	28D6	L--N----------	----------	AIAALYYYY----	----------
79	16F12	L--S---DE--------	----------	AIAALYYYY----	----------
80	22E2	L--N----------	----------	AIAALYYYY----	----------
291	22E2v1	L--N----------	----------	AIAALYYYY----	----------
81	31B12	I----------	----------	RGGLAARPG----	----------
292	31B12v1	I----------	----------	RGGL---PG----	----------
82		VIWYDGSNKYYADSVKG	RFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR	GIAVAYYYYGMDV	WGQGTTVTVSS
83	31G11	L--H----T--V-----	----------	----------	----------
84		YIYYSGSTYYNPSLKS	RVTISVDTSKNQFSLKLSSVTAADTAVYYCAR	YYYGMDV	WGQGTTVTVSS
85	3C4	----------	-I---------L----------	GGVTT---A---	----------
86		YIYYSGSTYYNPSLKS	RVTISVDTSKNQFSLKLSSVTAADTAVYYCAR	EDTAMV YFDY	WGQGTLVTVSS
87	27B2	---N----------	----------	------P-----	----------
88		EINHSGSTNYNPSLKS	RVTISVDTSKNQFSLKLSSVTAADTAVYYCAR	GQLV FDY	WGQGTLVTVSS
89	31A4	------R-D-------	----------K------N----------	----P---	----------
90		RTYYRSKWYNDYAVSVKS	RITINPDTSKNQFSLQLNSVTPEDTAVYYCAR	FDY	WGQGTLVTVSS
91	13H1	---------KN-S-----	----------G---------	GGPTAA---	----------

FIG. 3D

	SEQ ID NO:					
		Germline	**Germline**	**FR1**	**CDR1**	**FR2**
	486	VH2|226		QVTLKESGPVLVKPTETLTLTCTVS	GFSLSNARMGVS	WIRQPPGKALEWLA
11G1.5	479	VH2|226	JH3	----------	------V-----	----------
		Germline	**Germline**	**FR1**	**CDR1**	**FR2**
	487	VH3|307		EVQLVESGGGLVQPGGSLRLSCAAS	GFTFSSYWMS	WVRQAPGKGLEWVA
11H8.1	475	VH3|307	JH3	----------	-L---NF---	----------
11H4.1	471	VH3|307	JH3	----------	-L---NF---	----------
8A3.1	459	VH3|307	JH6	----------	----------	----------
11F1.1	463	VH3|307	JH6	----------	-----N----	----------
8A1.2	483	VH3|307	JH6	----------	-----N---T	----------
		Germline	**Germline**	**FR1**	**CDR1**	**FR2**
	488	VH3|3-33		QVQLVESGGGVVQPGRSLRLSCAAS	GFTFSSYGMH	WVRQAPGKGLEWVA
12H11.1	467	VH3|3-33	JH4	----------A----------	----------	----------

FIG. 3GGG

	SEQ ID NO:				
		CDR2	**FR3**	**CDR3**	**FR4**
	486	HIFSNDEKSYSTSLKS	RLTISKDTSKSQVVLTMTNMDPVDTATYYCARI		
11G1.5	479	-------N--R-----	----------	VGATTDDAFDI	WGQGTMVTVSS
		CDR2	**FR3**	**CDR3**	**FR4**
	487	NIKQDGSEKYYVDSVKG	RFTISRDNAKNSLYLQMNSLRAEDTAVYYCAR		
11H8.1	475	----------	----------	ESNWGFAFDI	WGQGTMVTVSS
11H4.1	471	------ND---------	----------	ESNWGFAFDI	WGQGTMVTVSS
8A3.1	459	S----------	--------R----------	DLVLMVYDIDYYYYGMDV	WGQGTTVTVSS
11F1.1	463	S----------	--A---------F----------	DLVLMVYDIDYYYYGMDV	WGQGTTVTVSS
8A1.2	483	S-------R--------	-------T----------	PLVLMVYALHYYYYGMDV	WGHGTTVTVSS
		CDR2	**FR3**	**CDR3**	**FR4**
	488	VIWYDGSNKYYADSVKG	RFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR		
12H11.1	467	--Y---I--H-------	----------	DRGLD	WGQGTLVTVSS

FIG. 3HHH

	SEQ ID NO:					
		Germline	**Germline**	**FR1**	**CDR1**	**FR2**
	489	VK2|A19		DIVMTQSPLSLPVTPGEPASISC	RSSQSLLHSNGYNYLD	WYLQKPGQSPQLLIY
8A1.2	485	VK2|A19	JK4	----------	----------	----------
8A3.1	461	VK2|A19	JK4	----------	----------	----------
11F1.1	465	VK2|A19	JK4	----------	----------	----------
		Germline	**Germline**	**FR1**	**CDR1**	**FR2**
	490	VK4|B3		DIVMTQSPDSLAVSLGERATINC	KSSQSVLYSSNNKNYLA	WYQQKPGQPPKLLIY
12H11.1	469	VK4|B3	JK1	----------	----------S----V	----------
		Germline	**Germline**	**FR1**	**CDR1**	**FR2**
	491	VL1|1c		QSVLTQPPSASGTPGQRVTISC	SGSSSNIGSNTVN	WYQQLPGTAPKLLIY
11H4.1	473	VL1|1c	JL3b	----------	---------K---	----F----------
11H8.1	477	VL1|1c	JL3b	----------	---------K---	----F----------
		Germline	**Germline**	**FR1**	**CDR1**	**FR2**
	492	VL3|3h		SYVLTQPPSVSVAPGKTARITC	GGNNIGSKSVH	WYQQKPGQAPVLVIY
11G1.5	481	VL3|3h	JL2	----------Q------	----------	----------V-

FIG. 3III

	SEQ ID NO:				
		CDR2	FR3	CDR3	FR4
	489	LGSNRAS	GVPDRFSGSGSGTDFTLKISRVEAEDVGVYYC		
8A1.2	485	-------	----------	MQALQTPLT	FGGGTKVEIK
8A3.1	461	-------	----------	MQALQTPLT	FGGGTKVEIK
11F1.1	465	-------	----------HL----------	MQTLQTPLT	FGGGTKVEIK
		CDR2	FR3	CDR3	FR4
	490	WASTRES	GVPDRFSGSGSGTDFTLTISSLQAEDVAVYYC		
12H11.1	469	-------	----------	QQYYSTPWT	FGQGTKVEIK
		CDR2	FR3	CDR3	FR4
	491	SNNQRPS	GVPDRFSGSKSGTSASLAISGLQSEDEADYYC		
11H4.1	473	---R---	----------	AAWDDSLNWV	FGAGTKLTVL
11H8.1	477	---R---	----------	ATWDDRLNWV	FGAGTKLTVL
		CDR2	FR3	CDR3	FR4
	492	YDSDRPS	GIPERFSGSNSGNTATLTISRVEAGDEADYYC		
11G1.5	481	D------	----------F--	QVWDSSSDPVV	FGGGTKLTVL

FIG. 3JJJ

FIG. 3D

Seq ID No.	LINE	CDR2	FR3	CDR3	FR4
70		AISGSGGSTYYADSVKG	RFTISRDNSKNTLYLQMNSLRAEDTAVYYCAK	VLMVYA DY	WGQGTLVTVSS
71	23B5	T-----DN---------	----------	KF------ML--	----------
72	25G4	T------N---------	----------	KF------ML--	----------
73		VIWYDGSNKYYADSVKG	RFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR	YYYGMDV	WGQGTTVTVSS
74	30A4	-------D---------	----------	ETGPLKL-------	----------
75		VIWYDGSNKYYADSVKG	RFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR	IAA GMDV	WGQGTTVTVSS
76	27A6	L--S---D---------	----------	AIAALYYYY----	----------
77	28B12	L--N------------	----------	AIAALYYYY----	--H-------
78	28D6	L--N------------	----------	AIAALYYYY----	----------
79	16F12	L--S---DE--------	----------	AIAALYYYY----	----------
80	22E2	L--N------------	----------	AIAALYYYY----	----------
291	22E2v1	L--N------------	----------	AIAALYYYY----	----------
81	31B12	I----------------	----------	RGGLAARPG----	----------
290	31B12v1	I----------------	----------	RGGL---PG----	----------
82		VIWYDGSNKYYADSVKG	RFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR	GIAVAYYYYGMDV	WGQGTTVTVSS
83	31G11	L--H----T--V-----	----------	----------	----------
84		YIYYSGSTYYNPSLKS	RVTISVDTSKNQFSLKLSSVTAADTAVYYCAR	YYYGMDV	WGQGTTVTVSS
85	3C4	----------------	-I---------L----------	GGVTT---A---	----------
86		YIYYSGSTYYNPSLKS	RVTISVDTSKNQFSLKLSSVTAADTAVYYCAR	EDTAMV YFDY	WGQGTLVTVSS
87	27B2	---N------------	----------	------P----	----------
88		EINHSGSTNYNPSLKS	RVTISVDTSKNQFSLKLSSVTAADTAVYYCAR	GQLV FDY	WGQGTLVTVSS
89	31A4	------R-D-------	----------K------N----------	----P---	----------
90		RTYYRSKWYNDYAVSVKS	RITINPDTSKNQFSLQLNSVTPEDTAVYYCAR	FDY	WGQGTLVTVSS
91	13H1	---------KN-S-----	----------G---------	GGPTAA---	----------

	SEQ ID NO:				SEQ ID NO:		SEQ ID NO:		SEQ ID NO:
		Germline	**Germline**	**FR1**		**CDR1**		**FR2**	
	486	VH2|226		QVTLKESGPVLVKPTETLTLTCTVS	506	GFSLSNARMGVS	507	WIRQPPGKALEWLA	509
11G1.5	479	VH2|226	JH3	-------------------------	506	------V-----	508	--------------	509
		Germline	**Germline**	**FR1**		**CDR1**		**FR2**	
	487	VH3|307		EVQLVESGGGLVQPGGSLRLSCAAS	510	GFTFSSYWMS	511	WVRQAPGKGLEWVA	514
11H8.1	475	VH3|307	JH3	-------------------------	510	-L---NF---	512	--------------	514
11H4.1	471	VH3|307	JH3	-------------------------	510	-L---NF---	512	--------------	514
8A3.1	459	VH3|307	JH6	-------------------------	510	----------	511	--------------	514
11F1.1	463	VH3|307	JH6	-------------------------	510	-----N----	500	--------------	514
8A1.2	483	VH3|307	JH6	-------------------------	510	-----N---T	513	--------------	514
		Germline	**Germline**	**FR1**		**CDR1**		**FR2**	
	488	VH3|3-33		QVQLVESGGGVVQPGRSLRLSCAAS	515	GFTFSSYGMH	517	WVRQAPGKGLEWVA	518
12H11.1	467	VH3|3-33	JH4	----------A------------	516	----------	517	--------------	518

FIG. 3GGG

	SEQ ID NO:		SEQ ID NO:		SEQ ID NO:		SEQ ID NO:		SEQ ID NO:
		CDR2		**FR3**		**CDR3**		**FR4**	
	486	HIFSNDEKSYSTSLKS	519	RLTISKDTSKSQVVLTMTNMDPVDTATYYCARI	521				
11G1.5	479	-------N--R-----	520	----------	521	VGATTDDAFDI	522	WGQGTMVTVSS	523
		CDR2		**FR3**		**CDR3**		**FR4**	
	487	NIKQDGSEKYYVDSVKG	526	RFTISRDNAKNSLYLQMNSLRAEDTAVYYCAR	529				
11H8.1	475	----------	526	----------	529	ESNWGFAFDI	533	WGQGTMVTVSS	523
11H4.1	471	------ND---------	527	----------	529	ESNWGFAFDI	533	WGQGTMVTVSS	523
8A3.1	459	S----------	501	---------R----------	530	DLVLMVYDIDYYYYGMDV	502	WGQGTTVTVSS	524
11F1.1	463	S----------	501	--A----------F----------	531	DLVLMVYDIDYYYYGMDV	502	WGQGTTVTVSS	524
8A1.2	483	S-------R--------	528	-------T----------	532	PLVLMVYALHYYYYGMDV	534	WGHGTTVTVSS	525
		CDR2		**FR3**		**CDR3**		**FR4**	
	488	VIWYDGSNKYYADSVKG	535	RFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR	537				
12H11.1	467	--Y---I--H-------	536	----------	537	DRGLD	538	WGQGTLVTVSS	539

FIG. 3HHH

	SEQ ID NO:				SEQ ID NO:		SEQ ID NO:		SEQ ID NO:
		Germline	**Germline**	**FR1**		**CDR1**		**FR2**	
	489	VK2|A19		DIVMTQSPLSLPVTPGEPASISC	540	RSSQSLLHSNGYNYLD	503	WYLQKPGQSPQLLIY	541
8A1.2	485	VK2|A19	JK4	----------	540	----------	503	----------	541
8A3.1	461	VK2|A19	JK4	----------	540	----------	503	----------	541
11F1.1	465	VK2|A19	JK4	----------	540	----------	503	----------	541
		Germline	**Germline**	**FR1**		**CDR1**		**FR2**	
	490	VK4|B3		DIVMTQSPDSLAVSLGERATINC	542	KSSQSVLYSSNNKNYLA	543	WYQQKPGQPPKLLIY	545
12H11.1	469	VK4|B3	JK1	----------	542	----------S----V	544	----------	545
		Germline	**Germline**	**FR1**		**CDR1**		**FR2**	
	491	VL1|1c		QSVLTQPPSASGTPGQRVTISC	546	SGSSSNIGSNTVN	547	WYQQLPGTAPKLLIY	549
11H4.1	473	VL1|1c	JL3b	----------	546	---------K---	548	----F----------	550
11H8.1	477	VL1|1c	JL3b	----------	546	---------K---	548	----F----------	550
		Germline	**Germline**	**FR1**		**CDR1**		**FR2**	
	492	VL3|3h		SYVLTQPPSVSVAPGKTARITC	551	GGNNIGSKSVH	553	WYQQKPGQAPVLVIY	554
11G1.5	481	VL3|3h	JL2	----------Q------	552	----------	553	----------V-	555

FIG. 3III

	SEQ ID NO:		SEQ ID NO:		SEQ ID NO:		SEQ ID NO:		SEQ ID NO:
		CDR2		FR3		CDR3		FR4	
	489	LGSNRAS	504	GVPDRFSGSGSGTDFTLKISRVEAEDVGVYYC	556				
8A1.2	485	-------	504	----------	556	MQALQTPLT	558	FGGGTKVEIK	559
8A3.1	461	-------	504	----------	556	MQALQTPLT	558	FGGGTKVEIK	559
11F1.1	465	-------	504	----------HL----------	557	MQTLQTPLT	505	FGGGTKVEIK	559
		CDR2		FR3		CDR3		FR4	
	490	WASTRES	560	GVPDRFSGSGSGTDFTLTISSLQAEDVAVYYC	561				
12H11.1	469	-------	560	----------	561	QQYYSTPWT	562	FGQGTKVEIK	563
		CDR2		FR3		CDR3		FR4	
	491	SNNQRPS	564	GVPDRFSGSKSGTSASLAISGLQSEDEADYYC	566				
11H4.1	473	---R---	565	----------	566	AAWDDSLNWV	567	FGAGTKLTVL	569
11H8.1	477	---R---	565	----------	566	ATWDDRLNWV	568	FGAGTKLTVL	569
		CDR2		FR3		CDR3		FR4	
	492	YDSDRPS	570	GIPERFSGSNSGNTATLTISRVEAGDEADYYC	572				
11G1.5	481	D------	571	----------F--	573	QVWDSSSDPVV	574	FGGGTKLTVL	575

FIG. 3JJJ