

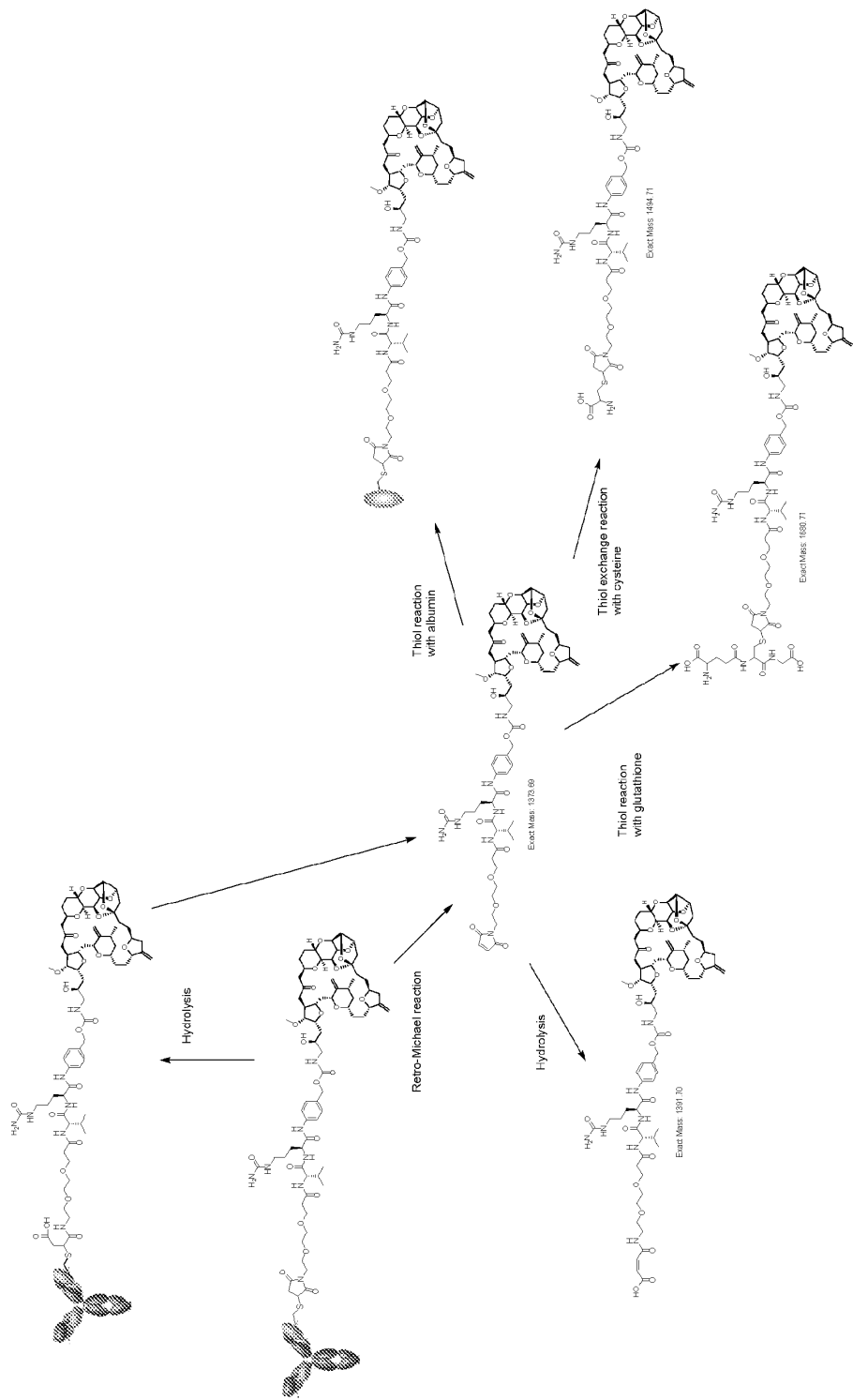


FIG. 1

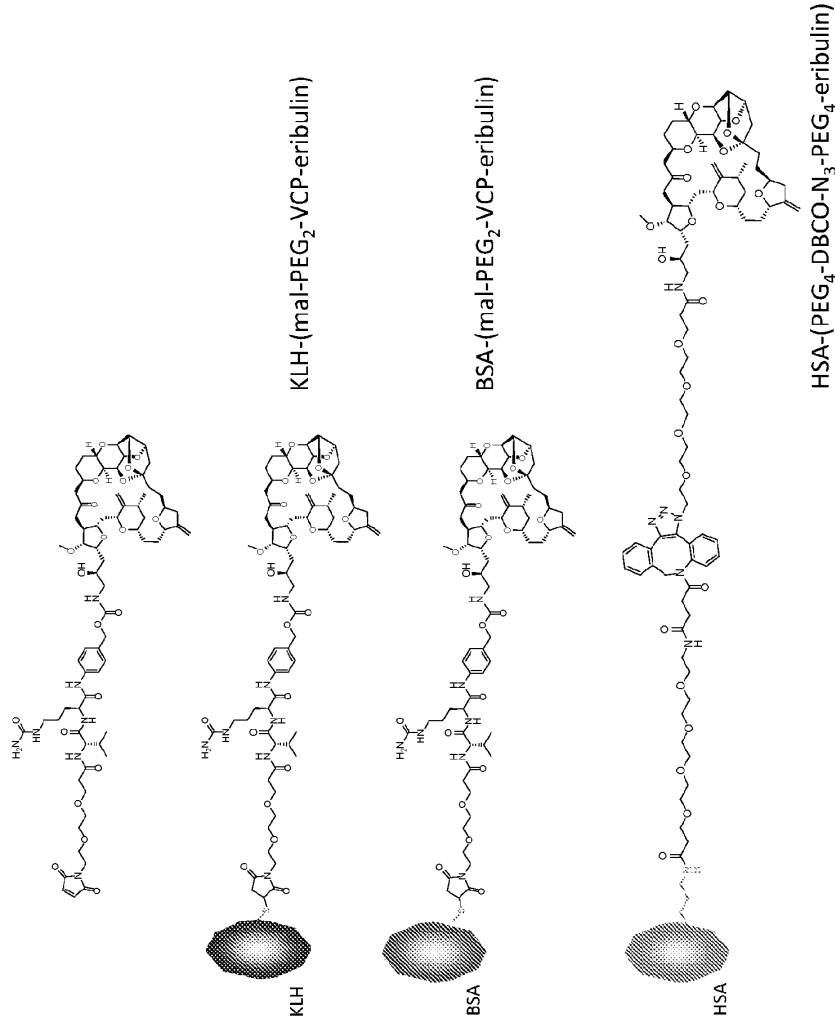


FIG. 2

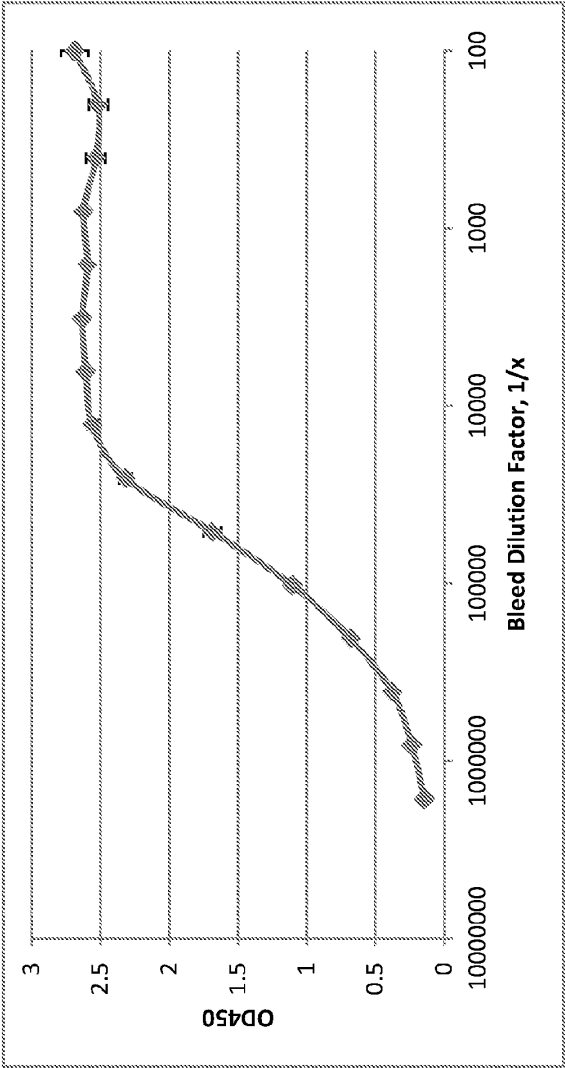


FIG. 3

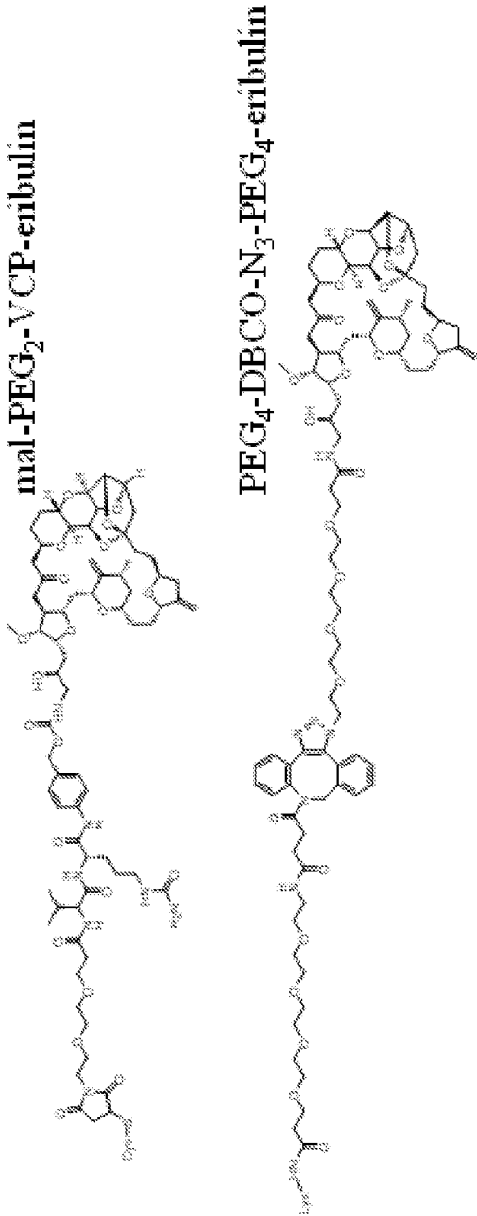


FIG. 4A

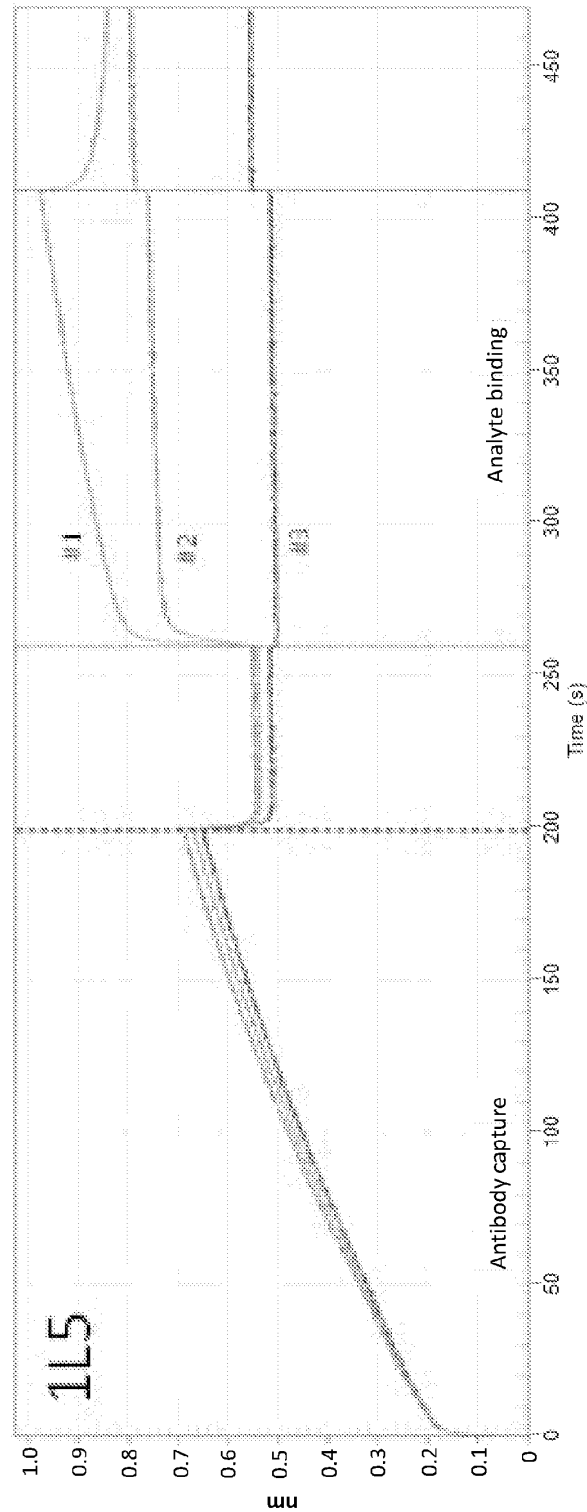


FIG. 4B

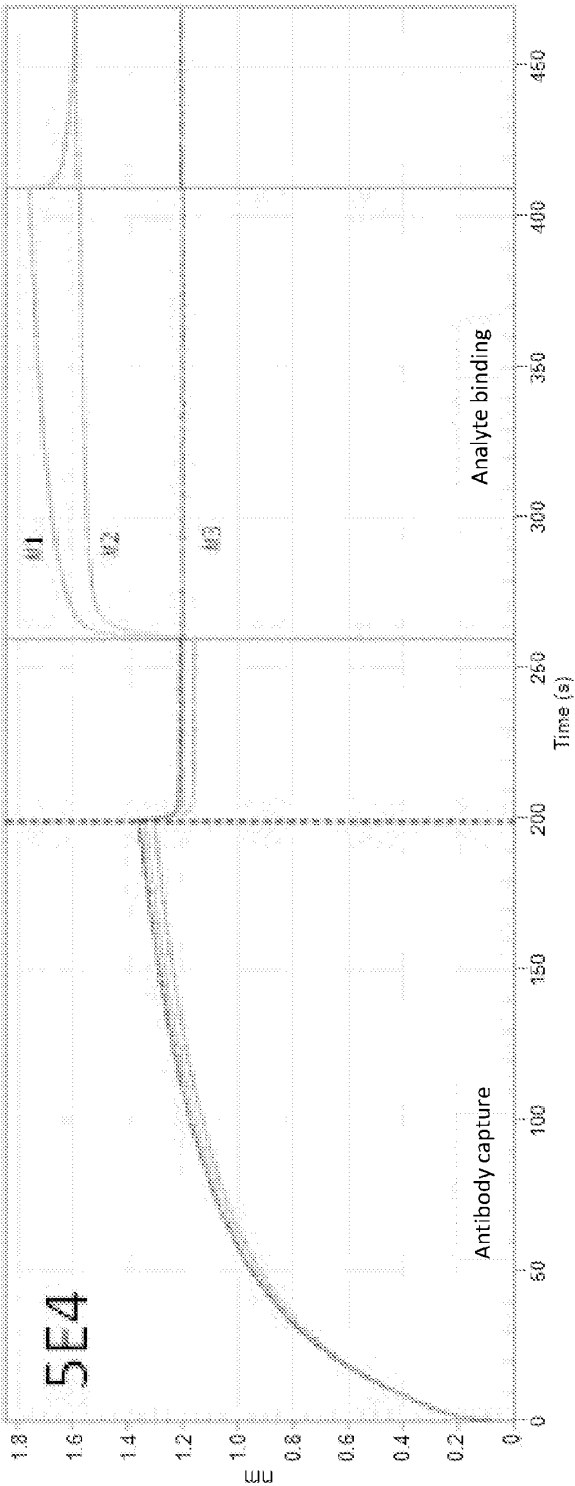


FIG. 4B (continued)

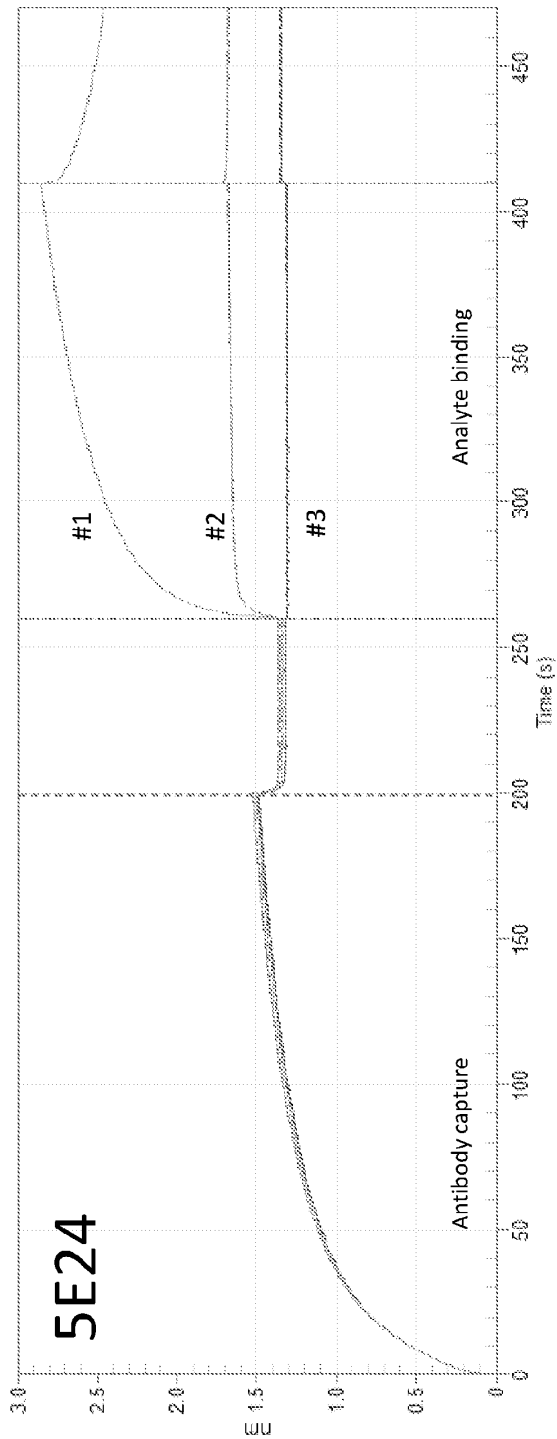


FIG. 4B (continued)

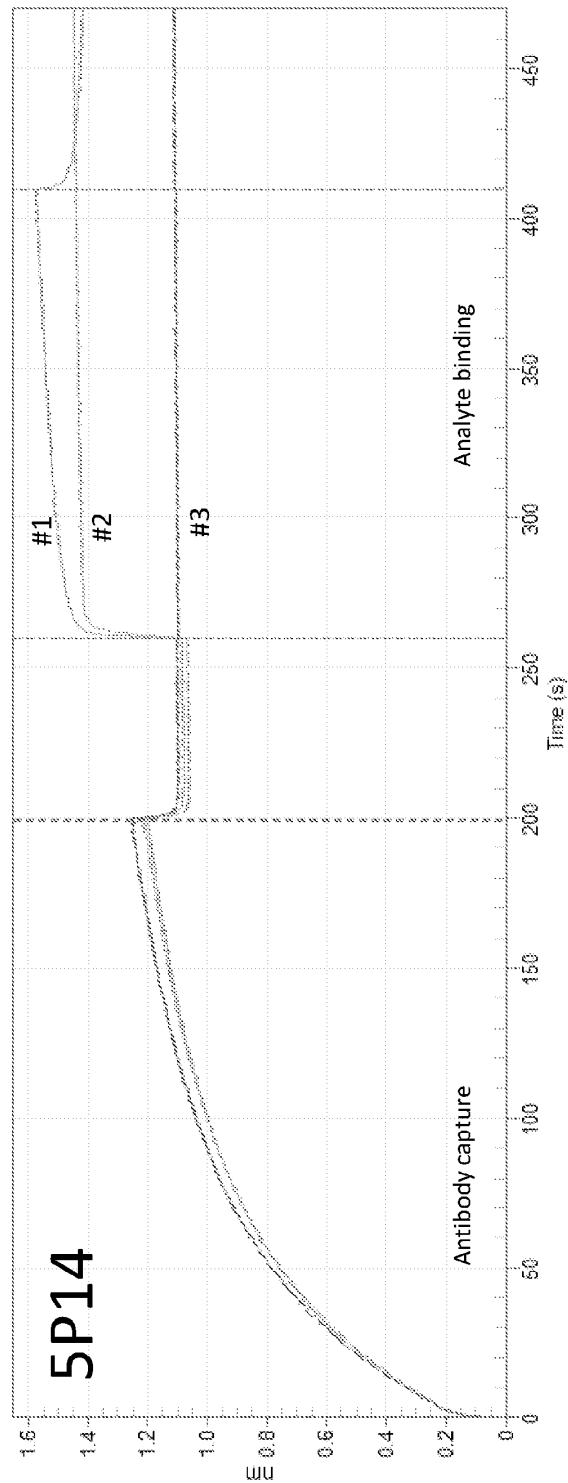


FIG. 4B (continued)

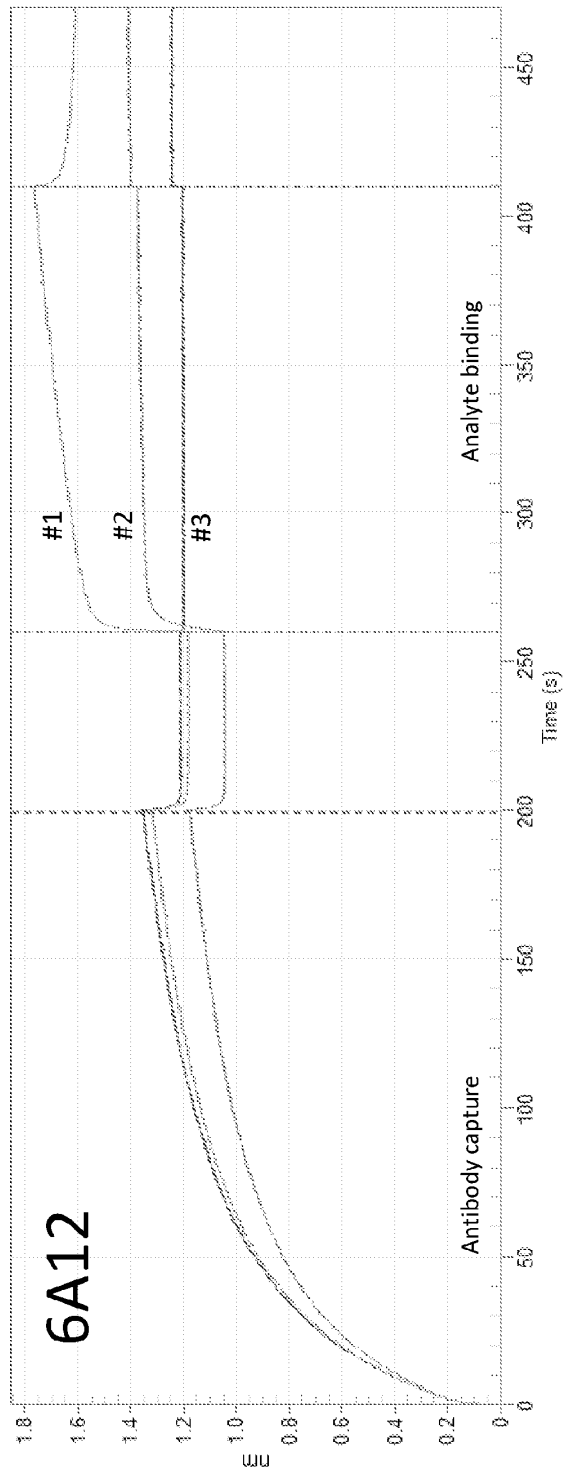


FIG. 4B (continued)

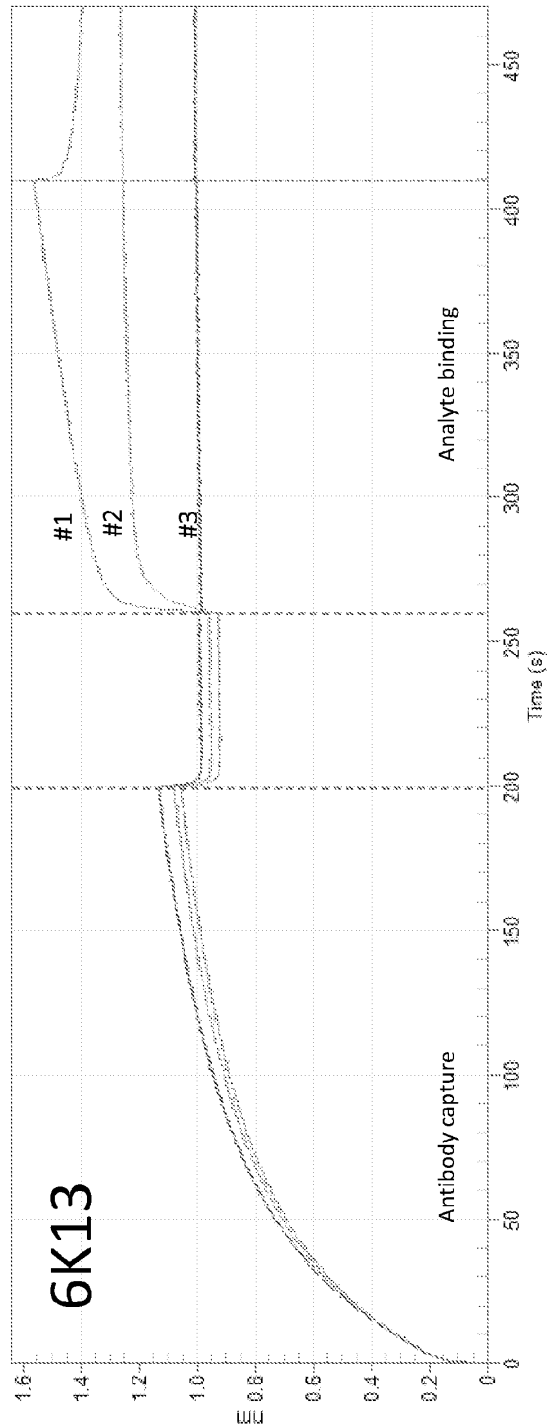


FIG. 4B (continued)

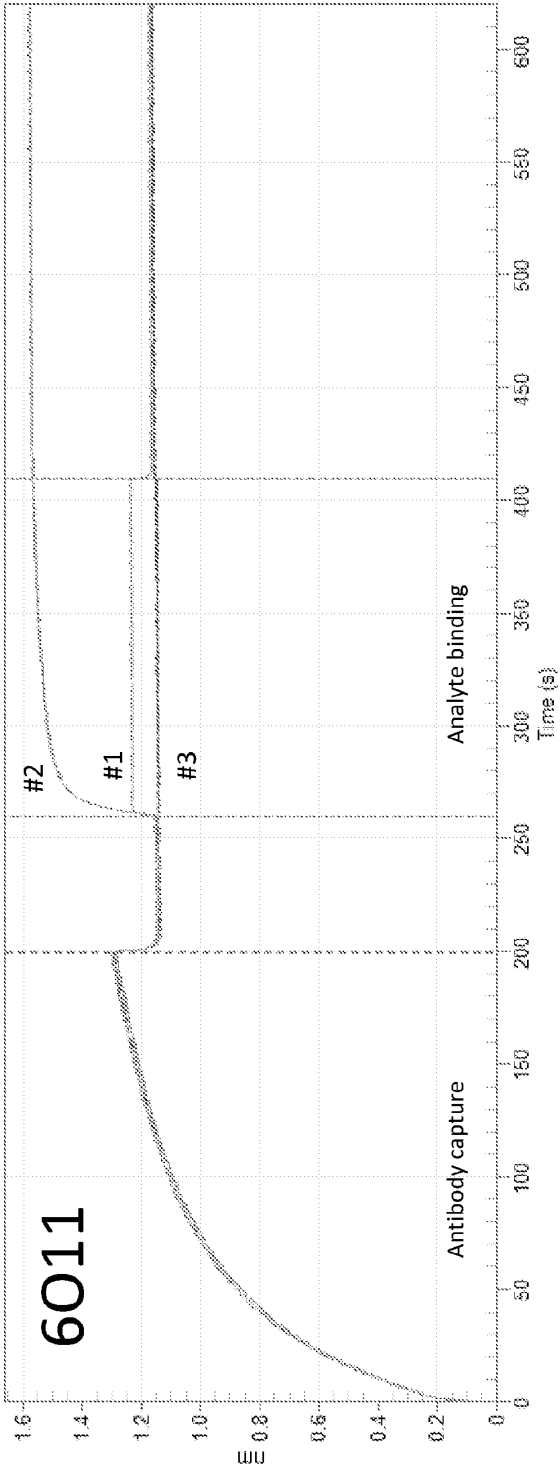


FIG. 4B (continued)

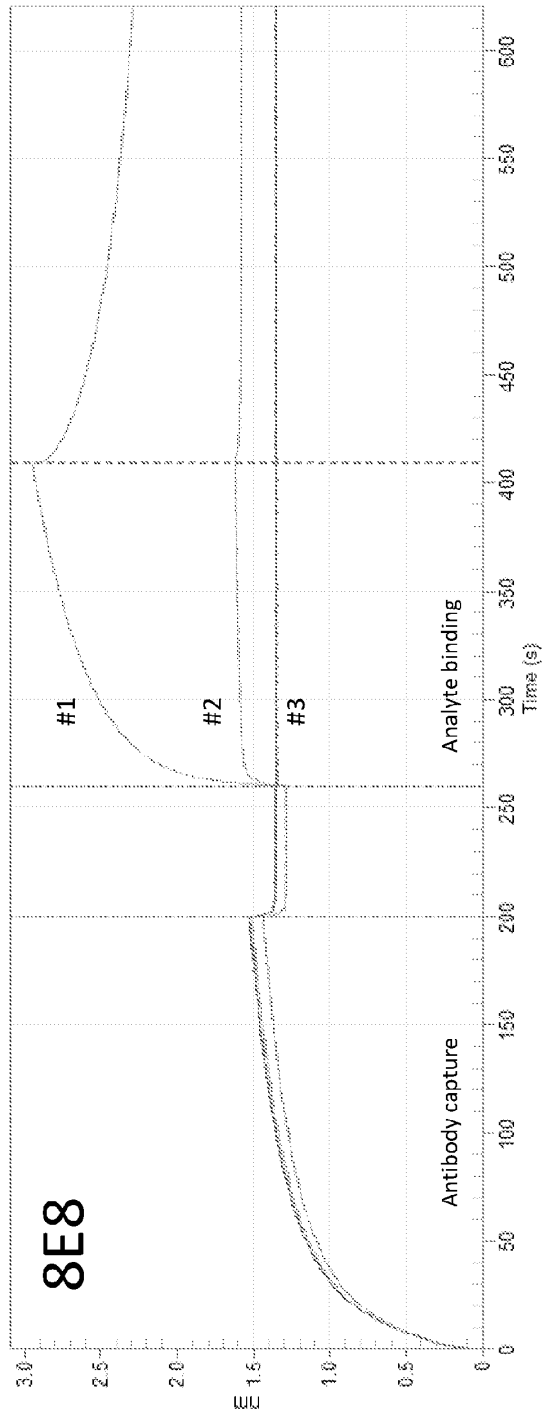


FIG. 4B (continued)

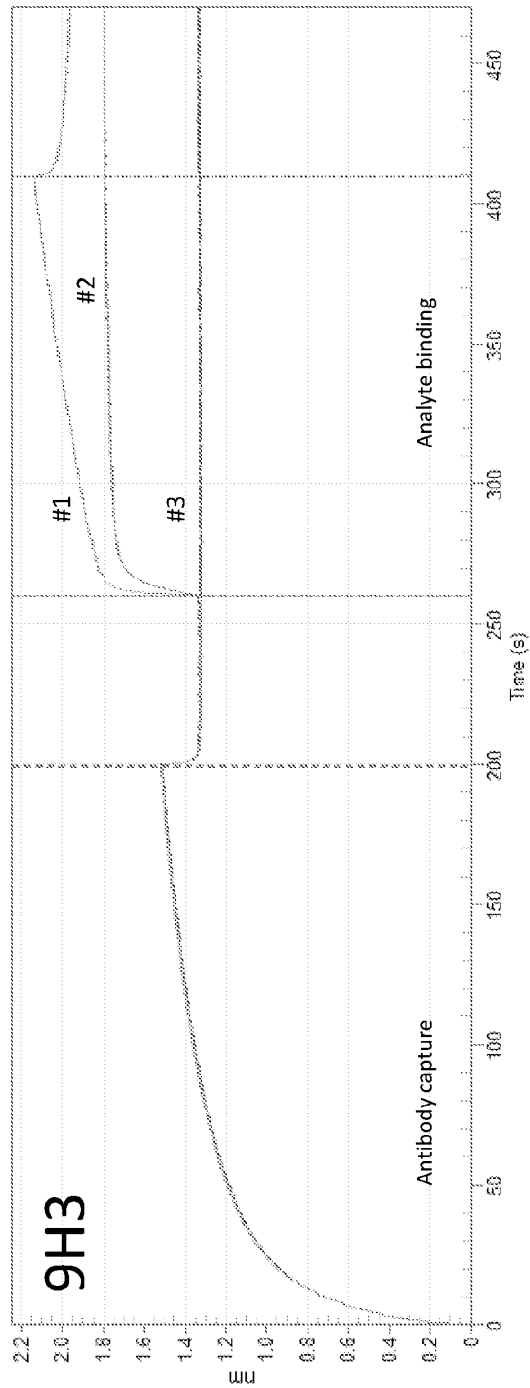


FIG. 4B (continued)

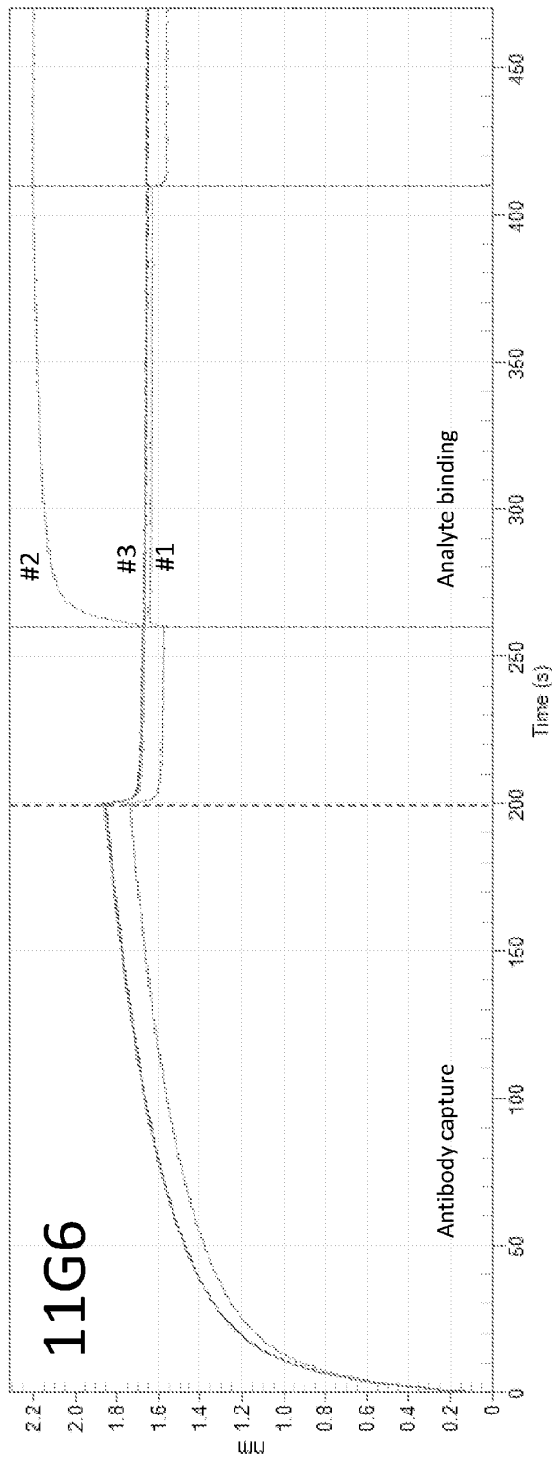


FIG. 4B (continued)

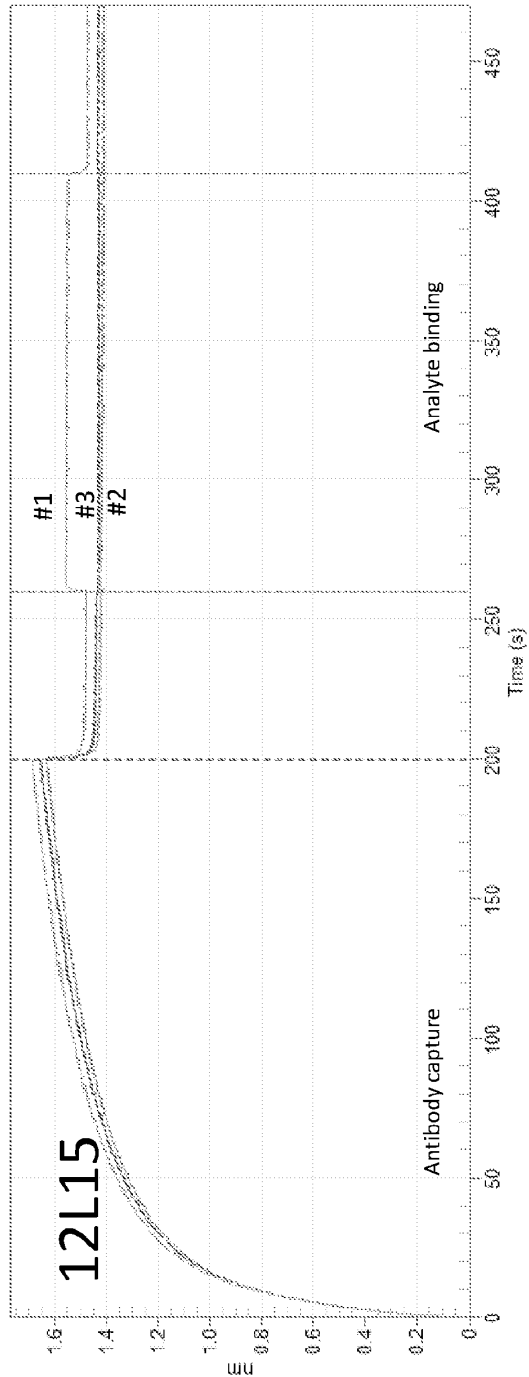


FIG. 4B (continued)

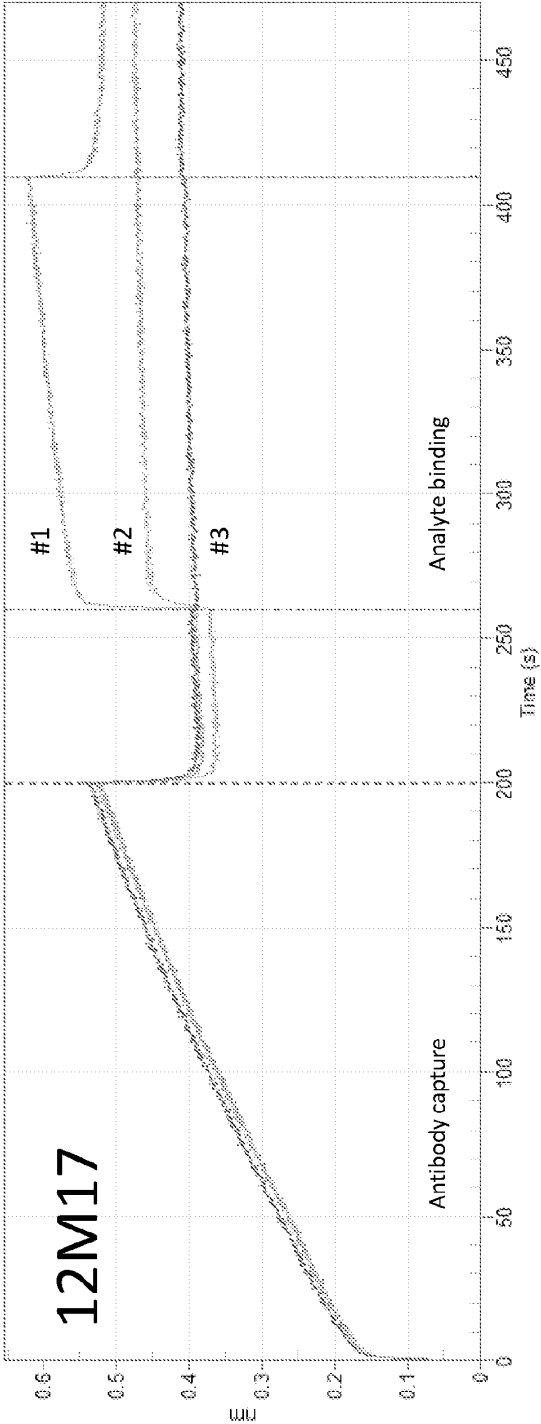


FIG. 4B (continued)

VH	QEQLEESGGDLV/KPEGSLT/LSCKASGFTLSSYGICWVVRQAPGKGPWIAICIGNSGSGTYTASWAKGRFTVSKTSS
2204_1L5	TTVTLQMTSLTAADTATYFCRSRLYGDVSGYNWYRLWGPGLTVTVSS
2204_5E4	QEQLEESGGDLV/KPEGSLT/LCTASGFSFSSYGLCWVRQAPGKGLEWIACIYAGSSGLTYANWAKGRFTISKTS
2204_5E24	TTVTLQMTSLTAADTATYFCARSLVGDGSGYGWYKLGWGPGLTVTVSS
2204_5P14	QSQLEESGGDLV/KPGASLT/LCTASGFSFSSYTYMCWVRQAPGKGLEWIAIGIDTGSLSGISHYASWAKGRFTISKTS
2204_6A12	TTVTLQMTSLTAADTATYFCARDAYS PDGVRGYAFGNFDLWGPGLTVTVSS
2204_6K13	QEQLVESGGGLV/QPEGSLT/LCTASGFSFSTSYHMCWVRQAPGKGLEWIGCIYTSSDITWYANWAKGRFTISKAS
2204_6O11	STTVTLQMTSLTAADTATYFCARGTGITDWSFNLWGPGLTVTVSS
2204_8E8	QEQLVESGGGLV/QPEGSLT/LCTASGFSFSSHHMCWVRQAPGKGLEWIGCIYTIINIITWYASWAKGRFTISKAS
2204_9H3	STTVTLQMTSLTAADTATLFCVRGAGSTDWSFNLWGPGLTVTVSS
2204_11G6	QEQLEESGGDLV/KPEGSLT/LCTASGFSFSSYVICWVRQAPGKRPEWIACMYNGDGSTYASWAKGRFTISKTS
2204_12L15	STTVTLQMTSLTAADTATYFCARNNGYHFGWGPGLTVTVSS
2204_12M17	QSQLEESGGDLV/KPGASLT/LCTASGFSFSSYVICWVRQAPGKGLELIGCINSGSGFTYASWVNGRFTGSKTSST
	TTVTLQMTSLTAADTATYFCARAGNDGWGEDLWGPGLTVTVSS
	QSQLEESGGDLV/KPGASLT/LCTASGFSFSGSYVMCWVRQAPGKGLEWIAIGIDTGSVGSISHYASWAKGRFTISKTS
	TTVTLQMTSLTAADTATYFCARDAYS PDGVRGYAFGNFDLWGPGLTVTVSS
	QEQLVESGGGLV/QPGGSLT/LCTCKASGDFSSNAMCWVRQAPGKGPWIAICIVNGDGYTYASWVNGRFTISR
	TSLNTVTLQMTSLTAADTATYFCARSLVGDVSGYGWYDLWGPGLTVTVSS
	QEQLVESGGGLV/QPGESL/KSCKVSGIDLSYGVSWVRQAPGKGPWIAICIFPGFGITNYANSVKGRFTISSDSAQ
	NTVFLQMTSLTASDTATYFCAREYGPSGYGVGYHSPWGPGLTVTVSS
	QEQLEESGGDLV/KPEGSLT/LCTASGFSFSSYVICWVRQAPGKGLEWIACIYAGSSGTYPTWATGRFVISKTS
	STTVTLQMTSLTAADSGLYFCARGRDYDQYGAFFAYGLDLWGPGLTVTVSS
	QSQLEESGGGLV/KPEGSLT/LCTASGFTLNNYMCWVRQAPGKGLEWIGCIYNGNVRPYATWAKGRFTISKTS
	TTVTLQMTSLTAADTATYFCVRDSIFGDWDPFNLWGPGLTVTVST

FIG. 4C

VK	AQVLTQTTPSVSAAVGGTVTINCAQSQSVSNLYSWFQQKPGQPPKQLIYGASTLASGVPSRFKSGSGGTQ
2204_1L5	FTLTISDVQCADAATYCLGGYDCTSGDCNVFGGGTEVVVK
2204_5E4	AQVLTQTASPVSAAVGGTVTINCAQSQSVYKKNWLAWFQQKPGQPPKQLIYDASKLASGVSSRFSGSGGT
	QFTLTISDVQCEDAATYACAGGYDCSSADCNVAFGGGTEVVVK
2204_5E24	AQVLTQTASPVSAAVGSTVTINCAQSQSVWDNKNLAWFQQKPGQPPKRLIYASTLASGVSSRFKSGSGGT
	QFTLTISGVQCDDAATYCLGSYDYSRADCRVAFGGGTEVVVK
2204_5P14	DIVMTQTTPASVEAAGGTVTIKCAQSQNINSLAWYQQKPGQPPKLLIHRASTLASGIPSRFRGSRSGTEYTL
	TISDLECAADAATYQCNSYDSSSGYGSFSGGGTEVVVK
2204_6A12	DIVMTQTTPASVEAAGGTVTIKCAQSQSISSWLAWYQQKPGQPPKLLIYRASTLASGVPSRFKSGSGGTQFTL
	TISDLECAADAATYQCNSYDSSSGYGSFSGGGTEVVVK
2204_6K13	AAVLTQTASPVSAAPVGGTITISCAQSQSVNNNALSWFQQKVGQPPKVLIIYDASKLASGVPSRFSGSGSGTQ
	FTLTISDVQCDDAATYACAGADLSVSDTYAFGGGTEVVVK
2204_6O11	DIVMTQTTPASVSEPVGTTIKCAQSQSIVSYCSWYQQKPGQPPKRLIYASTLASGVPSRFEGSGSGTEFTLT
	ISDLECAADAATYQCNNNGVNGRGTPEGGGTEVVVK
2204_8E8	AQVLTQTASPVSAAVGSTVTINCAQSQSVWNNKHLAWYQQKPGQPPKRLIYASTLASGVSSRFSGSGGT
	HFTLTINDVQCDDAATYCLGSYDYSADCRVAFGGGTEVVVK
2204_9H3	AAVLTQTTPSSVSAAVGGTVISCAQSQSVYGNLYSWFQQKPGQPPKRLIYASSTLASGVPSRFSGSGSGT
	QFTLTISDVQCEDAATYCLGGYDCSSDCNVFGGGTEVVVK
2204_11G6	AAVLTQTTPSVSAAVGGTVISCAQSQSVYKNNWLWFWQQKPGQPPKLLIYAASNLESGLVPSRFSGSGSGTQ
	FTLTISDVQCDDAATYACAGGYSSSDYAFGGGTEVVVK
2204_12L15	AAVLTQTTPSVSAAVGGTVTINCAQSQSVYKNNWLSWYQQKPGQPPKLLIYGASNLASGVPSRFSGSGSGTQ
	FTLTISAVQCDDAATYACAGAYMIGTGPFAFGGGTEVVVK
2204_12M17	AQVLTQTTPASVSAAVGGTVTINCAQSQSVSNLYSWYQQKPGQPPKRLIYASTLASGVPSRFKSGSGGTQ
	FTLTISDVQCDDAATYQCQGGYDCSSVDCVAFGGGTEVVVK

FIG. 4C (continued)

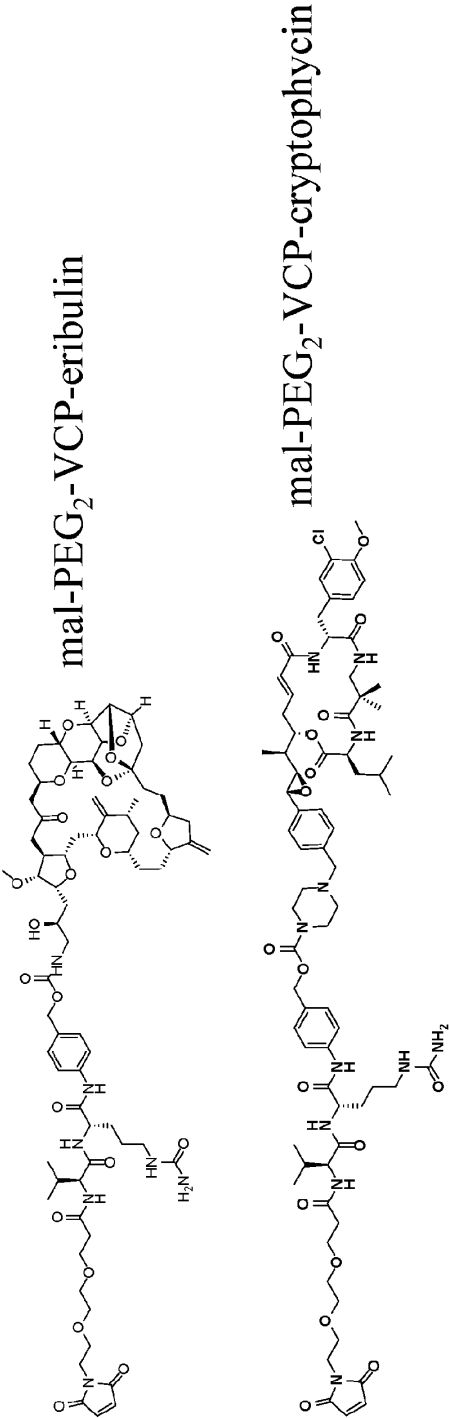


FIG. 4D

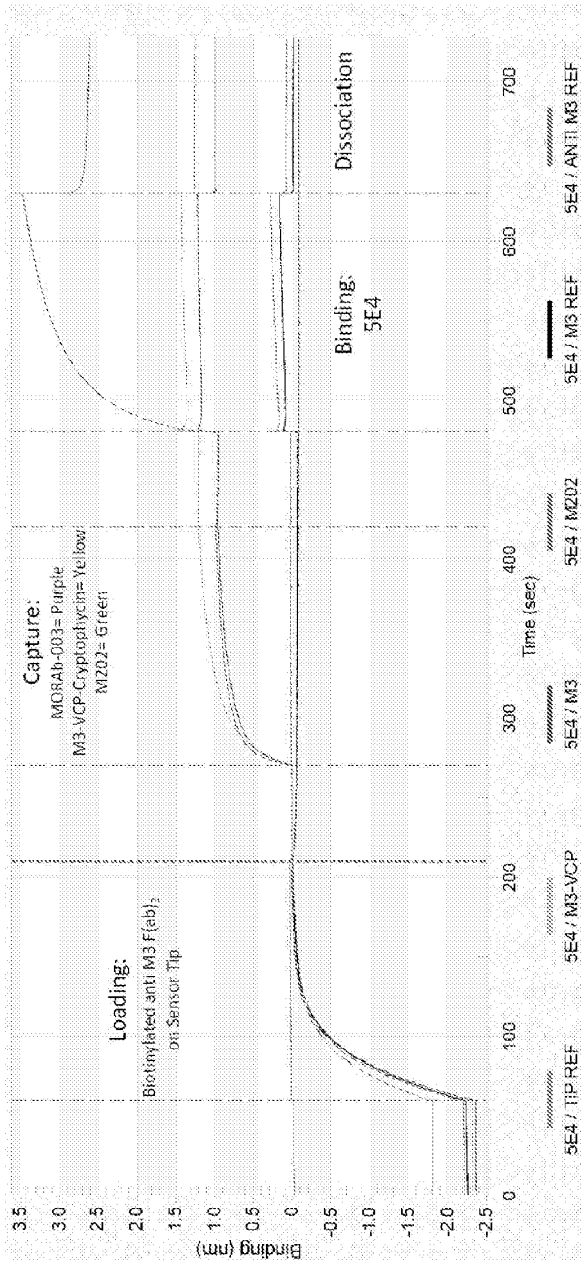


FIG. 4E

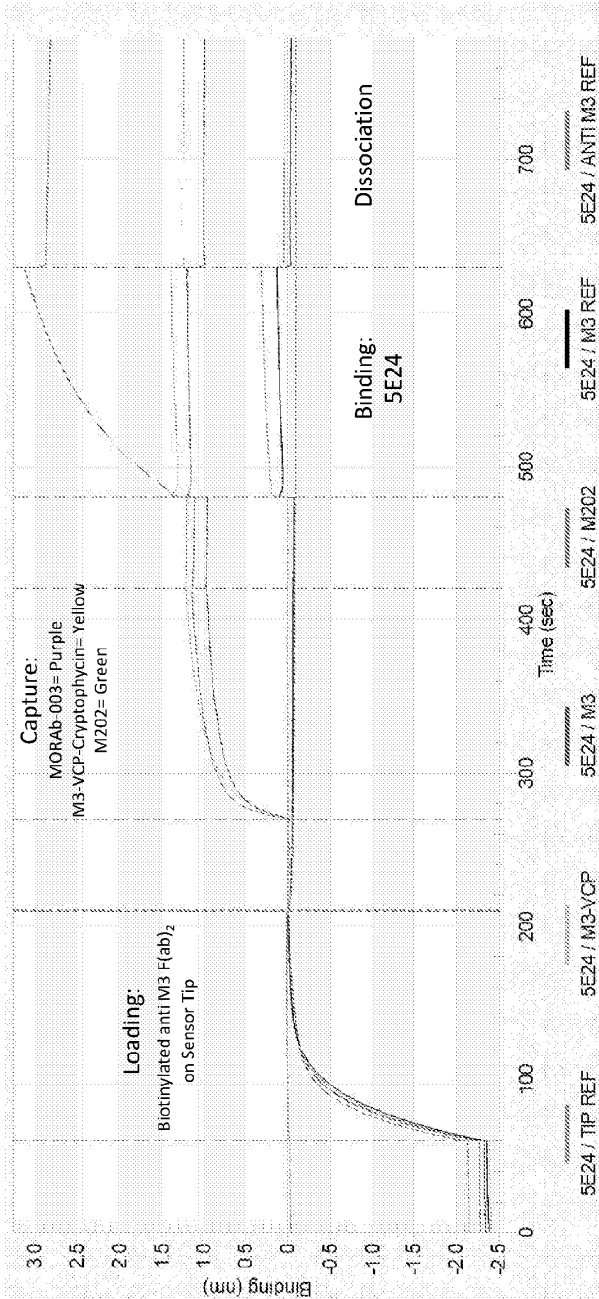


FIG. 4E (continued)

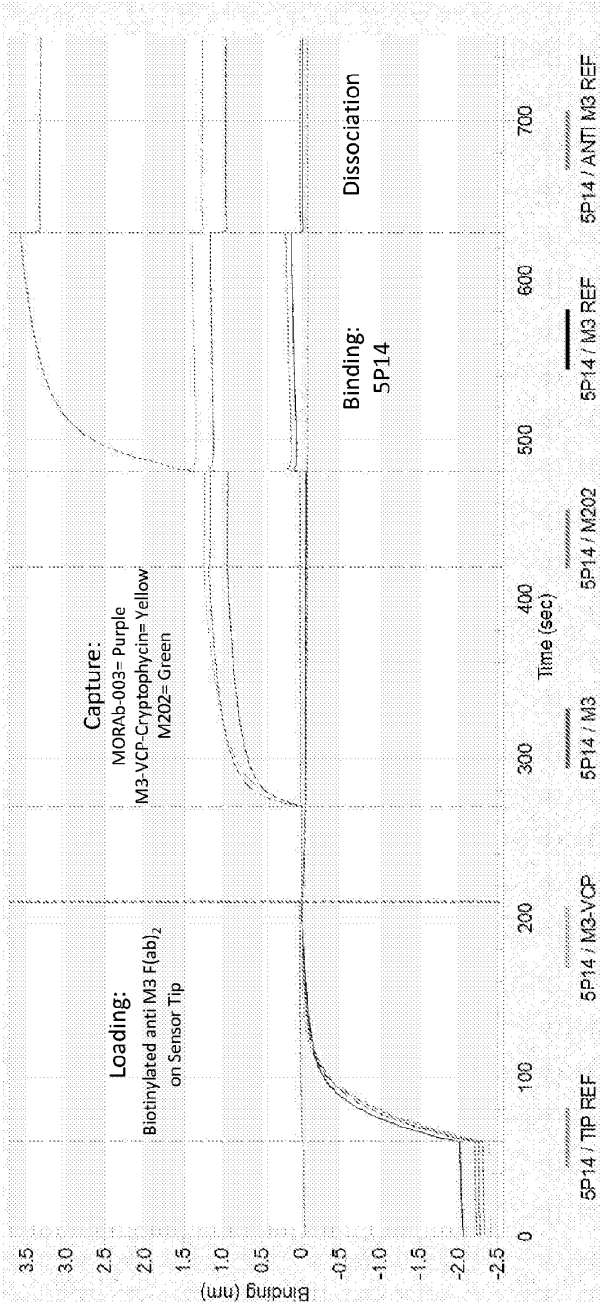


FIG. 4E (continued)

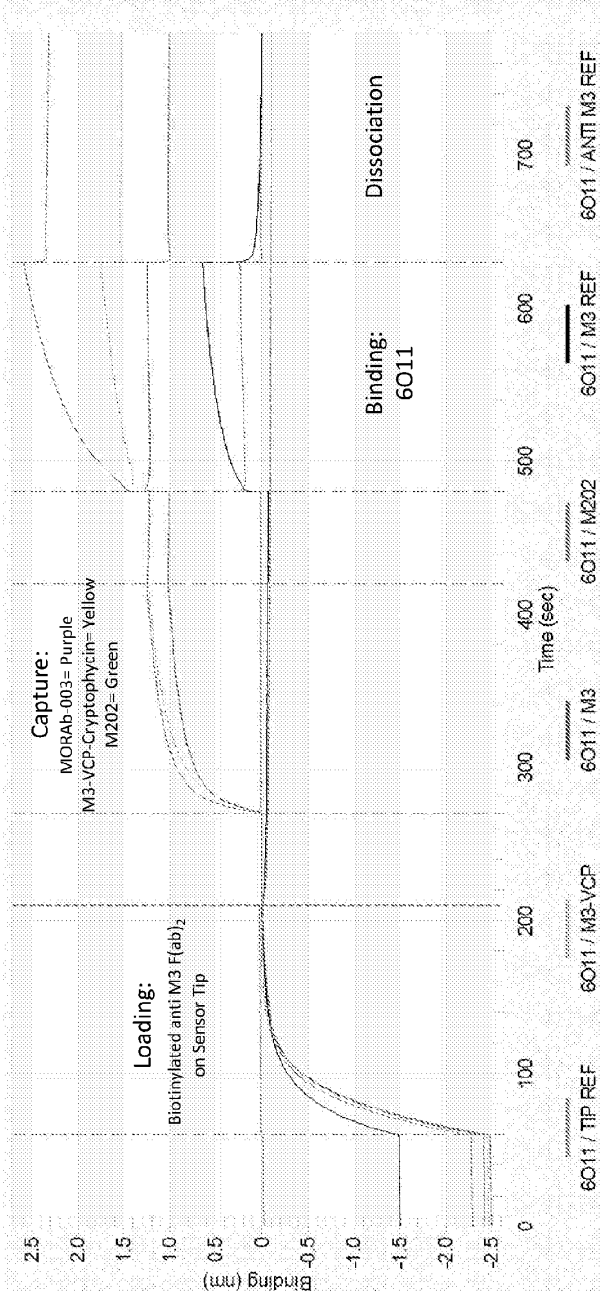


FIG. 4E (continued)

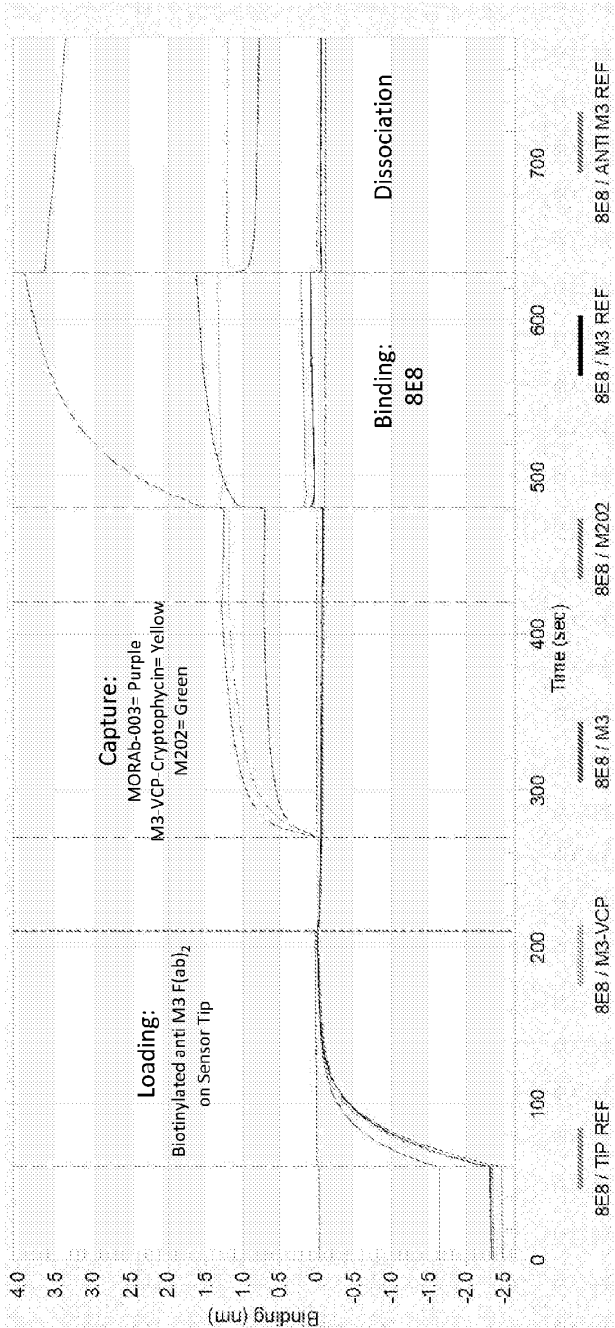


FIG. 4E (continued)

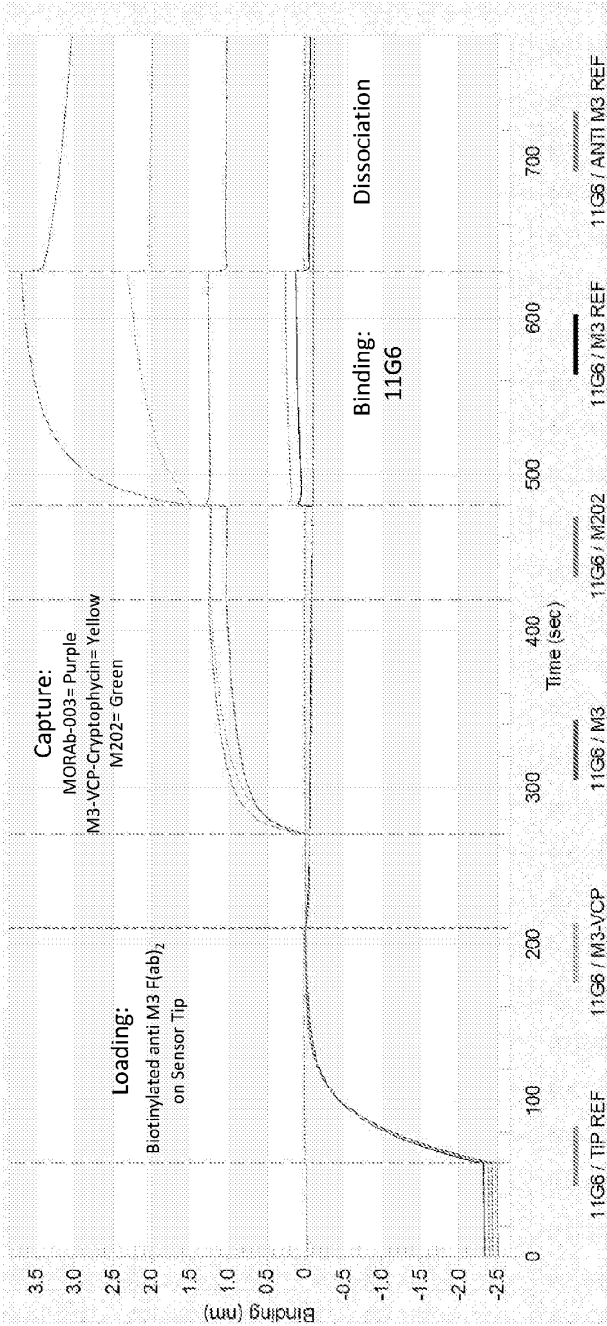


FIG. 4E (continued)

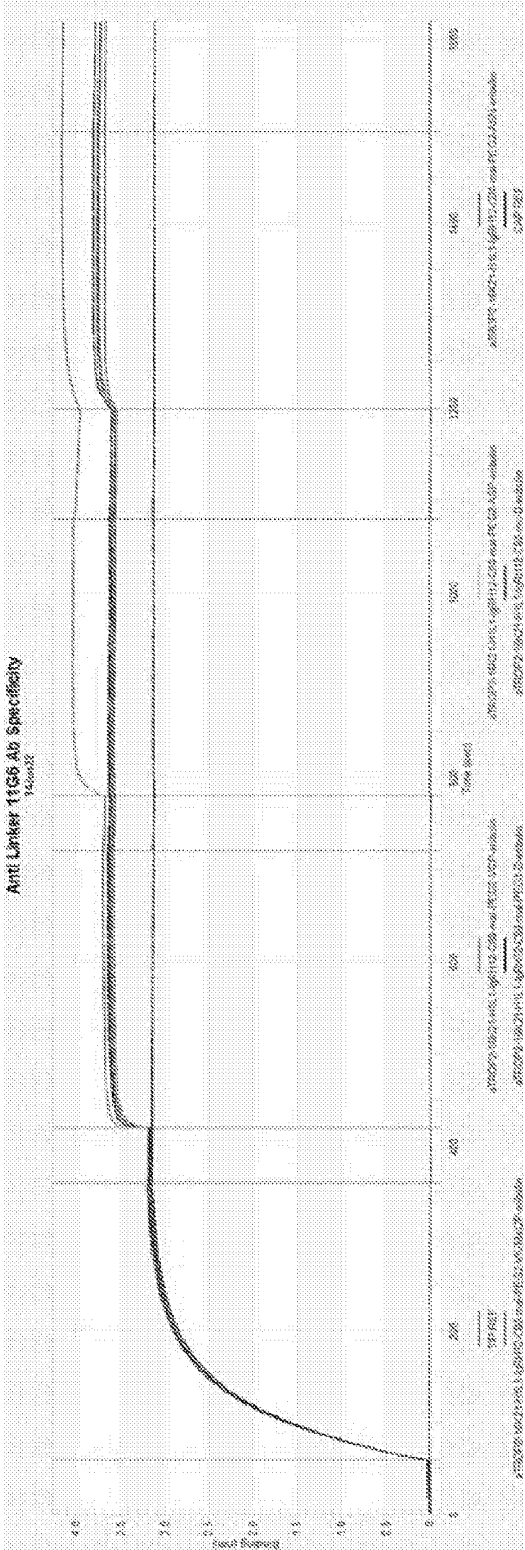


FIG. 4F

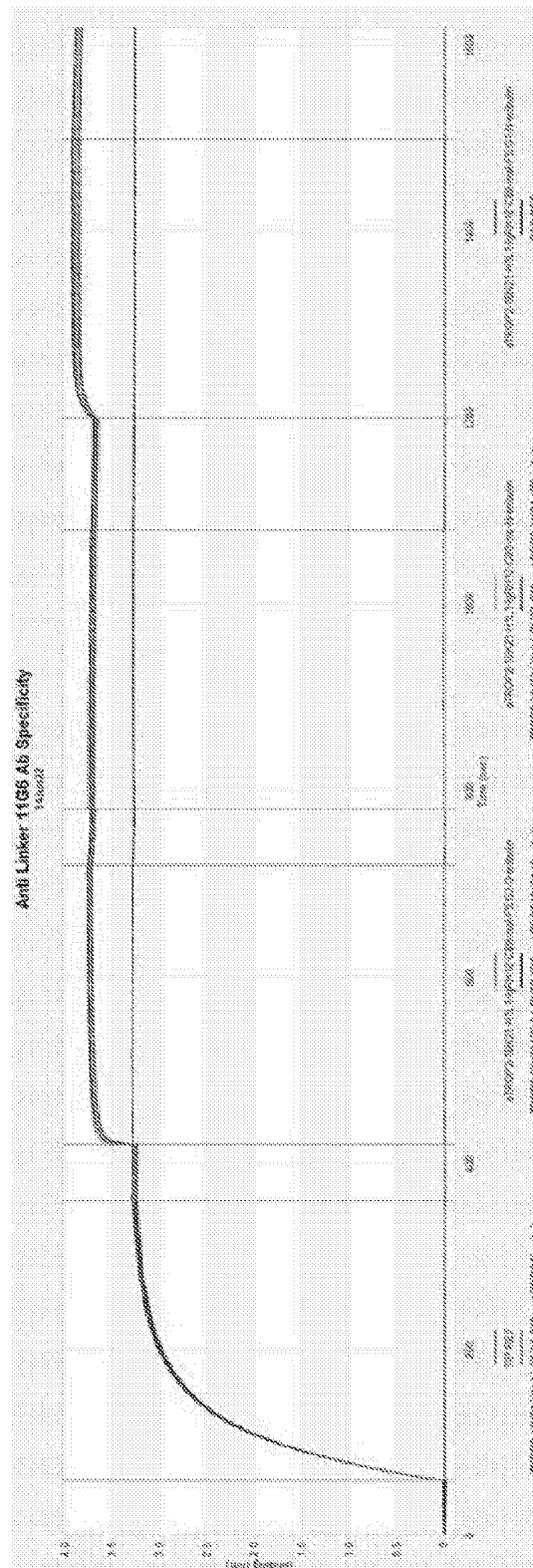


FIG. 4F (continued)

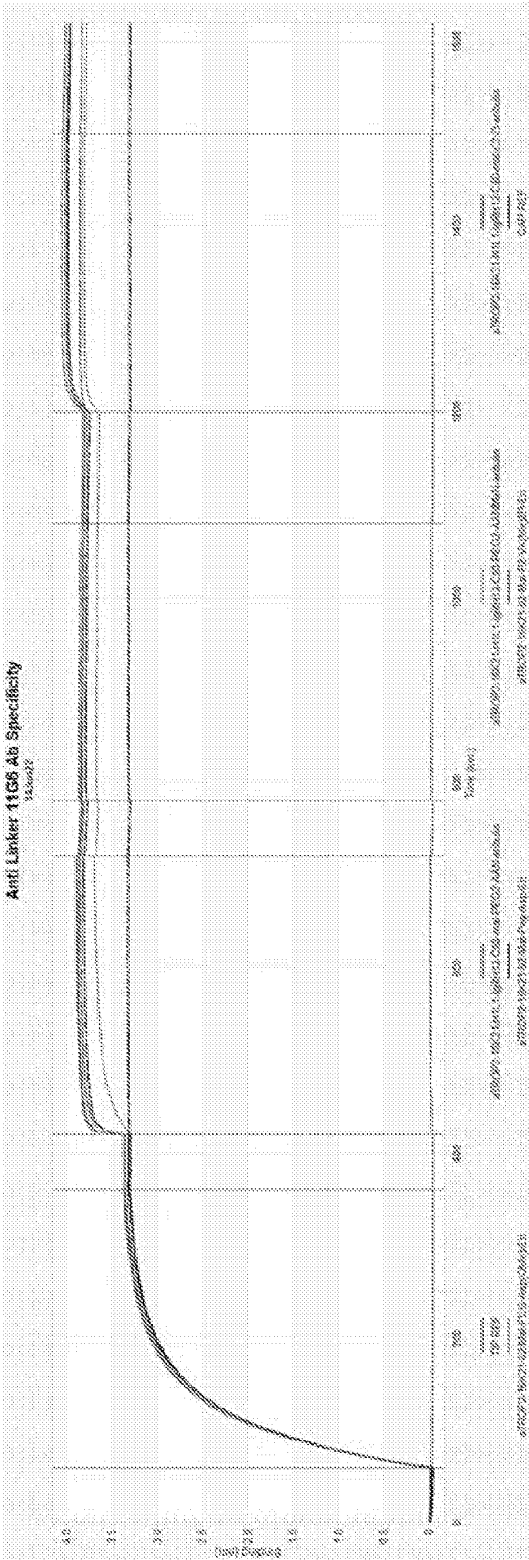


FIG. 4F (continued)

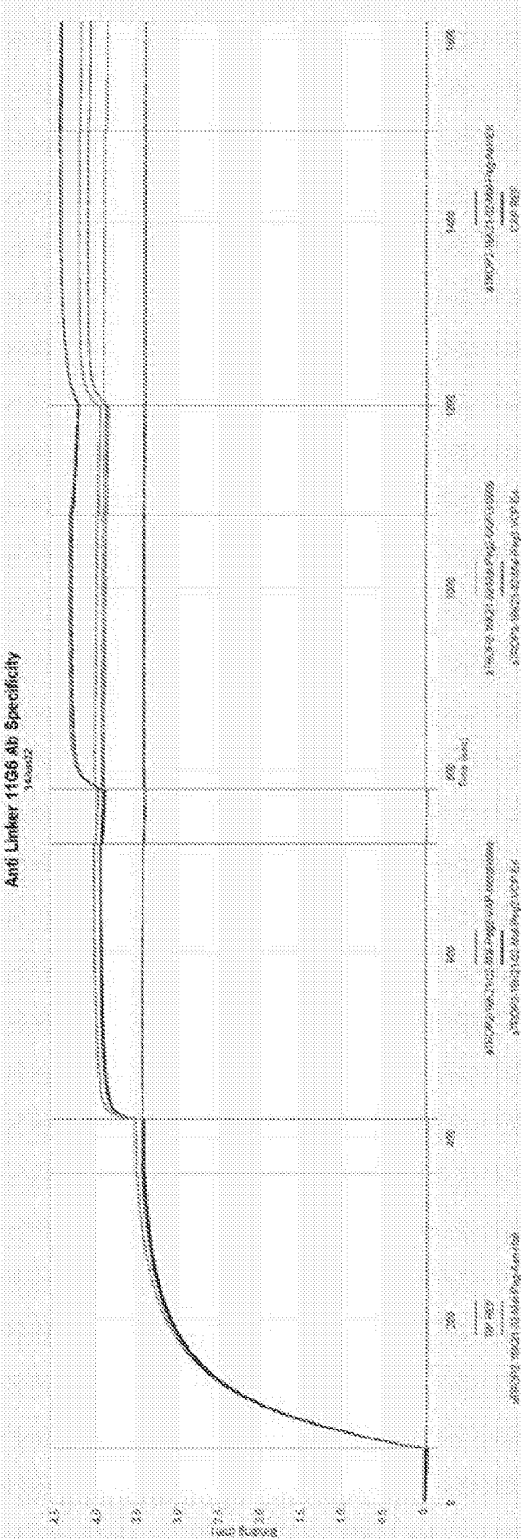


FIG. 4F (continued)

MORAb-003

MORAb-202 DAR = 0

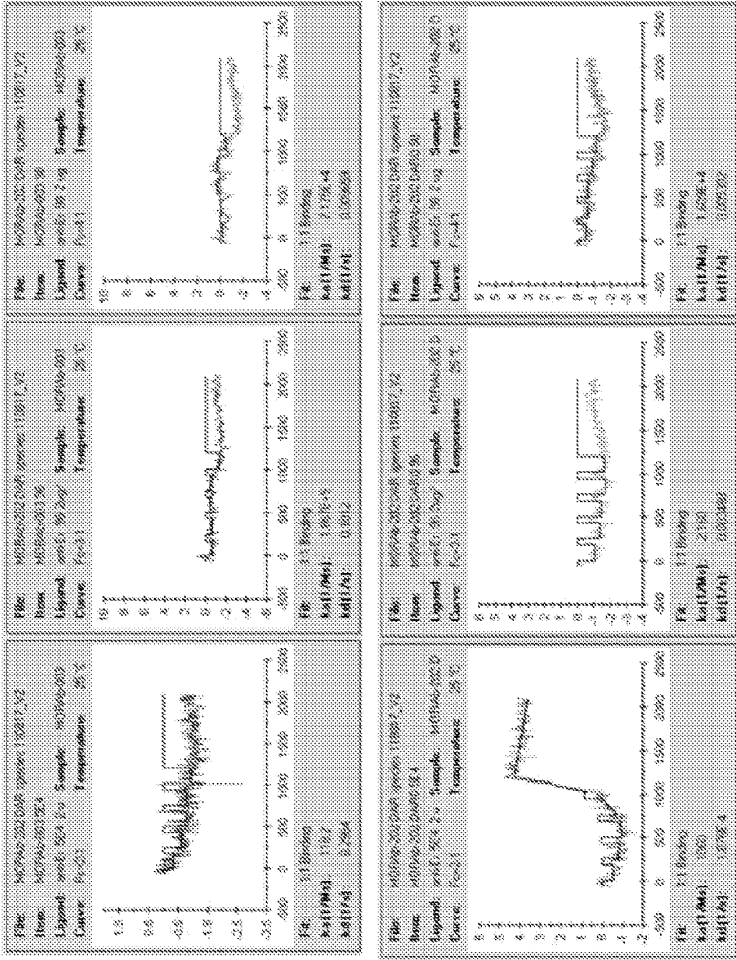


FIG. 5

MORAb-202 DAR = 2

MORAb-202 DAR = 4

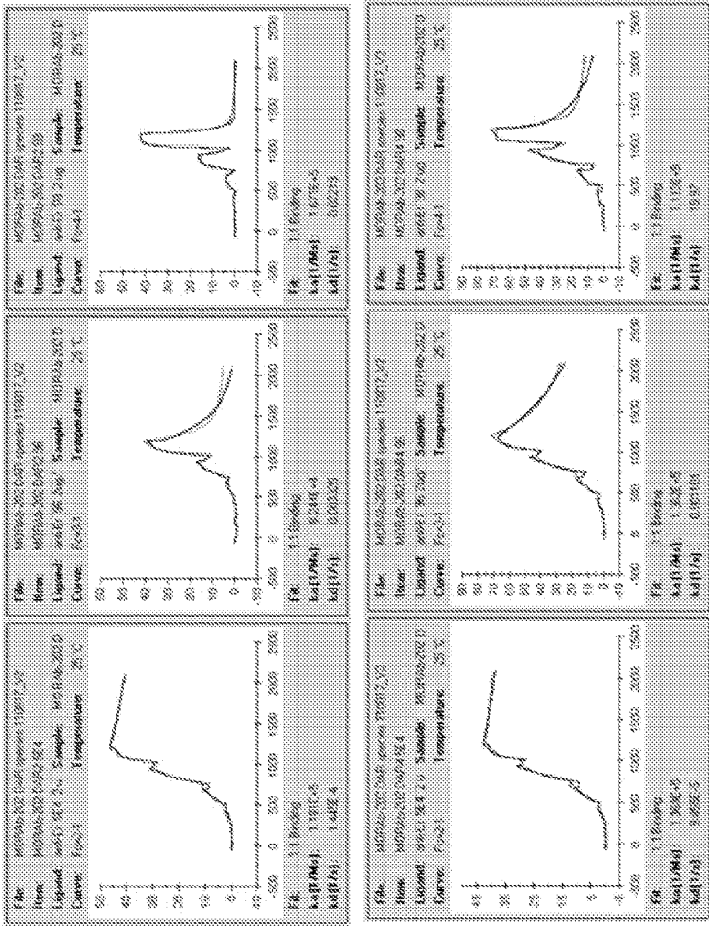


FIG. 5 (continued)

MORAb-202 DS

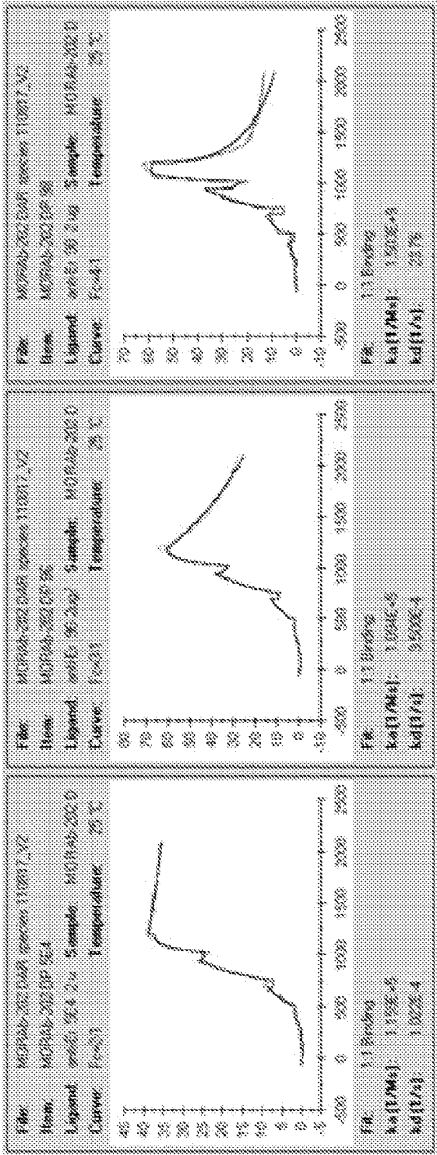
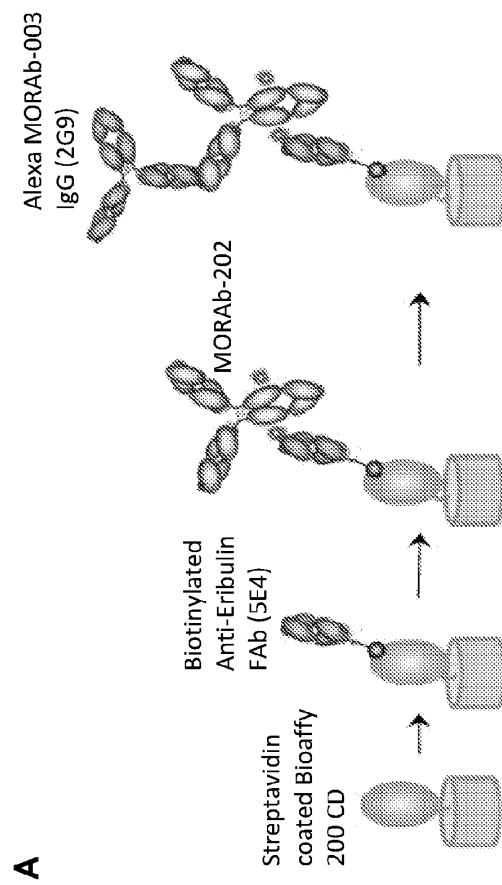
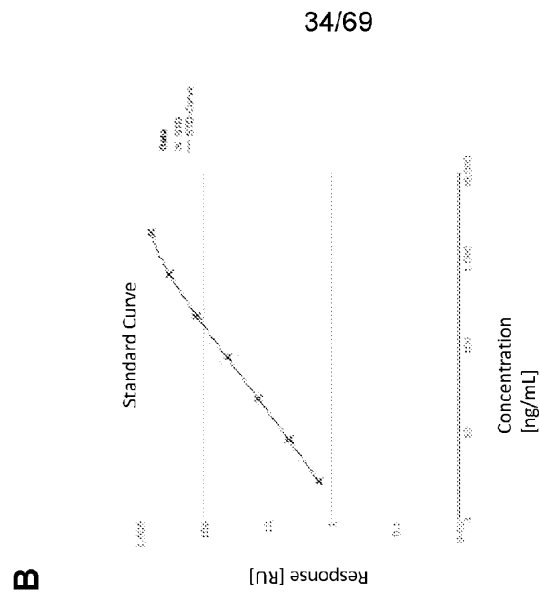


FIG. 5 (continued)



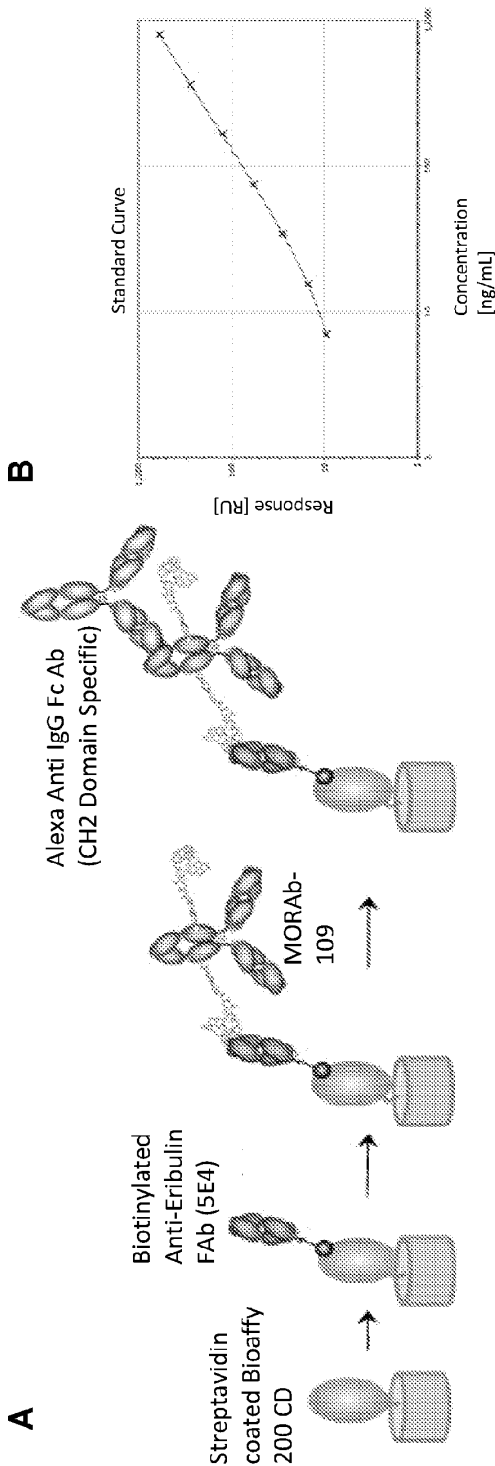


FIG. 7

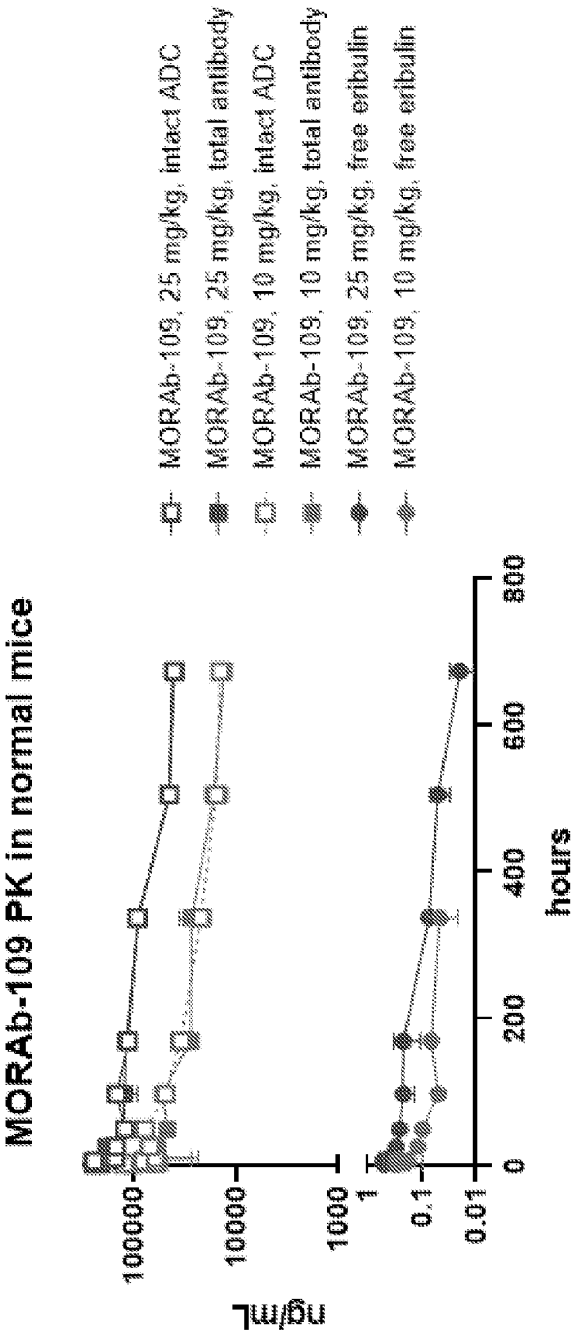


FIG. 8A

	25 mg/kg MORAb-109 (non-TB)		10 mg/kg MORAb-109 (non-TB)	
	total Ab	Intact ADC	eribulin (NCA)	total Ab Intact ADC eribulin (NCA)
AUC (hr*ug/mL)	74177	72735	0.088	23962
CL (mL/hr/kg)	0.337	0.344	2756	0.417
Beta t _{1/2} (hr)	332	328	152	309
V _{ss} (mL/kg)	159	162	604362	185
C _{max} (ug/mL)	239	245	0.0005167	102

FIG. 8B

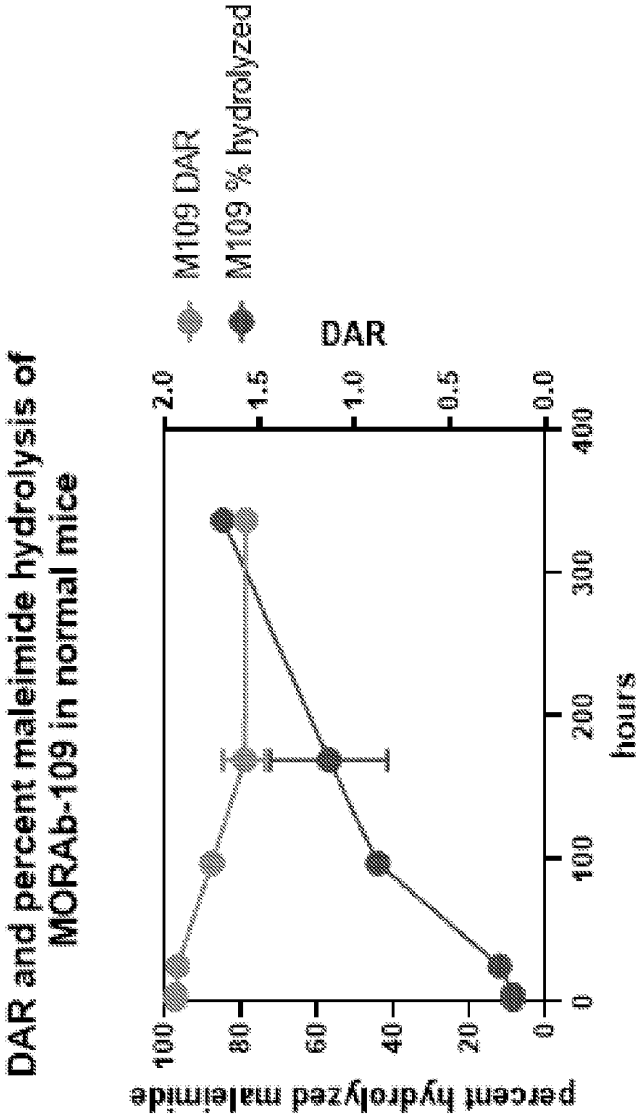


FIG. 8C

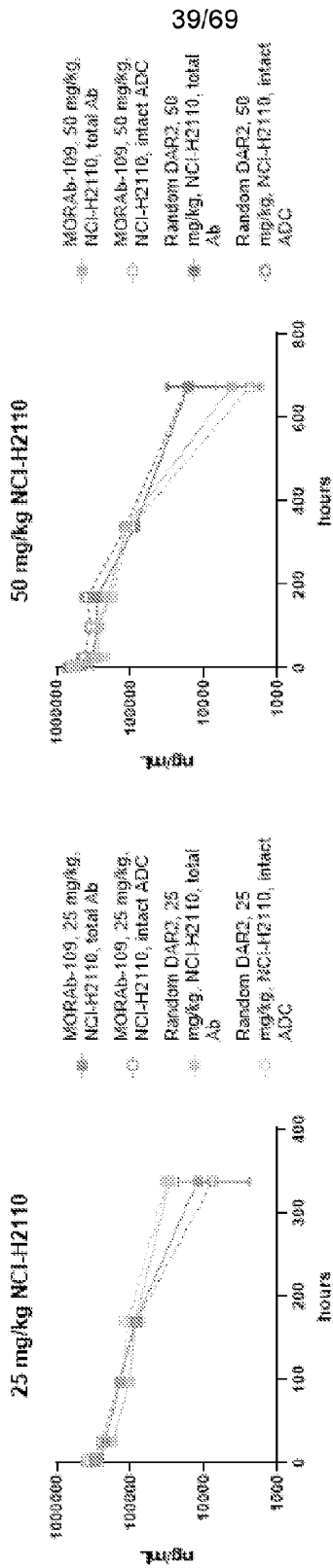


FIG. 9A

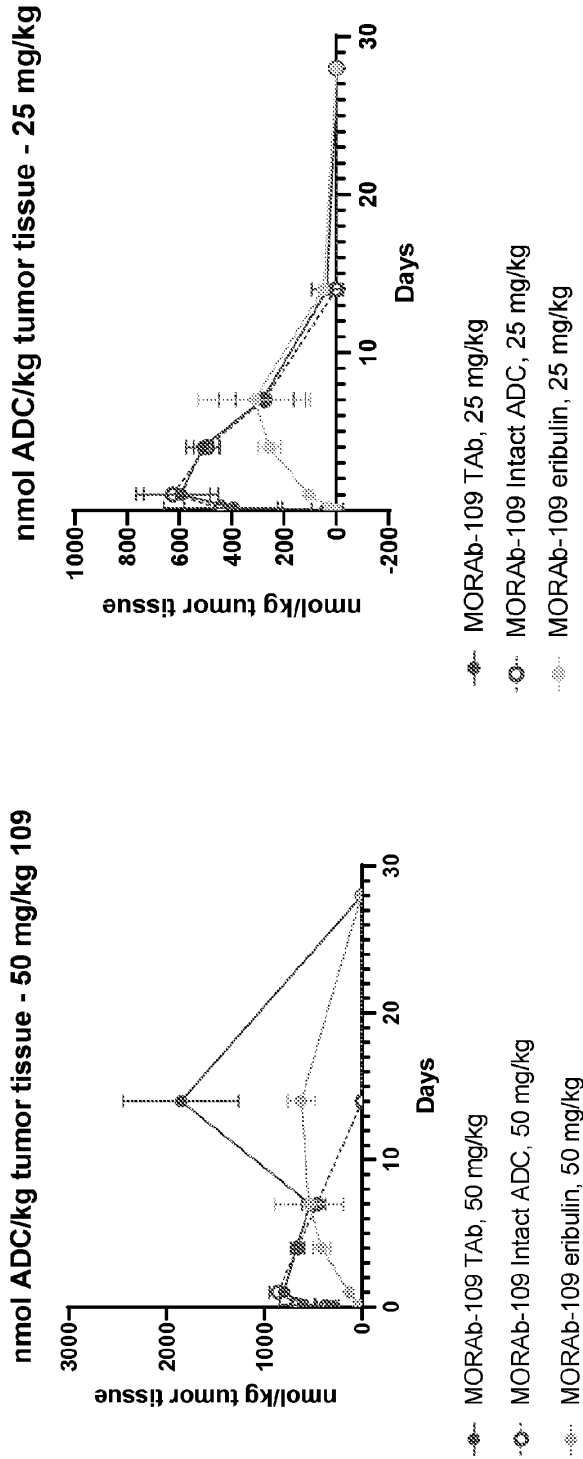


FIG. 9B

Plasma											
50 mg/kg MORAb-109 (NCI-H2110) 25 mg/kg MORAb-109 (NCI-H2110) 50 mg/kg random DAR2 (NCI-H2110) 25 mg/kg Random DAR2 (NCI-H2110)											
total Ab	Intact ADC	eribulin (NCA)	total Ab	Intact ADC	eribulin (NCA)	total Ab	Intact ADC	eribulin (NCA)	total Ab	Intact ADC	eribulin (NCA)
69136	67742	0.187	32618	31886	0.094	94651	113036	0.205	36994	45522	0.106
0.723	0.738	2603	0.766	0.784	2592	0.528	0.442	2374	0.676	0.542	2285
101	88	115	75	63	121	140	135	220	106	99	216
106	94	431287	82	71	453307	106	86	752959	103	79	711278
473	532	0.00191	301	353	0.00047	470	582	0.00103	243	318	0.00038
AUC (hr*ug/mL)											
CL (mL/hr/kg)											
Beta t _{1/2} (hr)											
Vss (mL/kg)											
C _{max} (ug/mL)											
Tumor											
50 mg/kg MORAb-109 (NCI-H2110) 25 mg/kg MORAb-109 (NCI-H2110) 50 mg/kg Random DAR2 (NCI-H2110) 25 mg/kg Random DAR2 (NCI-H2110)											
total Ab	Intact ADC	eribulin	total Ab	Intact ADC	eribulin	total Ab	Intact ADC	eribulin	total Ab	Intact ADC	eribulin
37947	26690	112	28689	27688	44.5			125	12987	27640	48.7
1.315	1.88		1.338	1.413					1.924	0.904	
200	124		118	107					155	209	
126	139	0.351	97.4	102.3	0.183			0.316	52.9	86	0.128
12.7	11.4	118	19.5	17	90			146	19.4	18.3	139
AUC (hr*ug/g tissue)											
CL (mL/hr/kg)											
Beta t _{1/2} (hr)											
Vss (mL/kg)											
C _{max} (ug/g tissue)											
T _{max} (hr)											

FIG. 9C

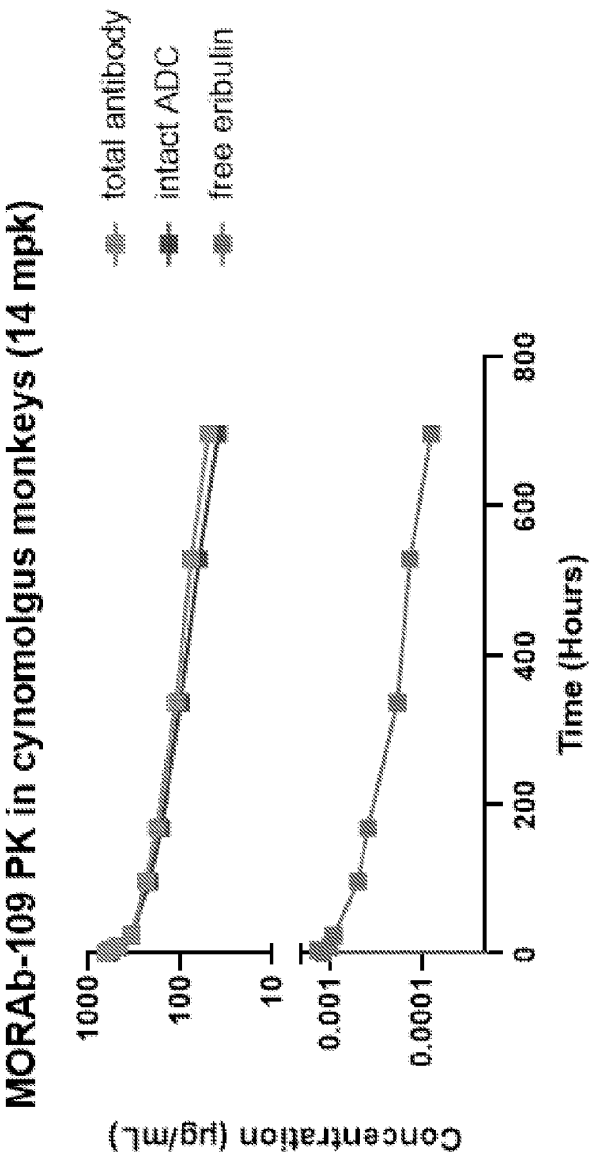


FIG. 10A

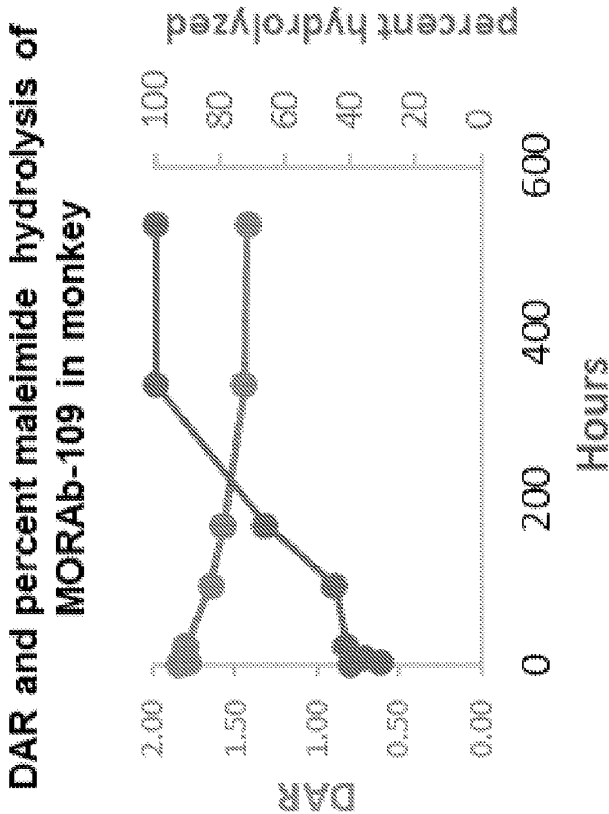


FIG. 10B

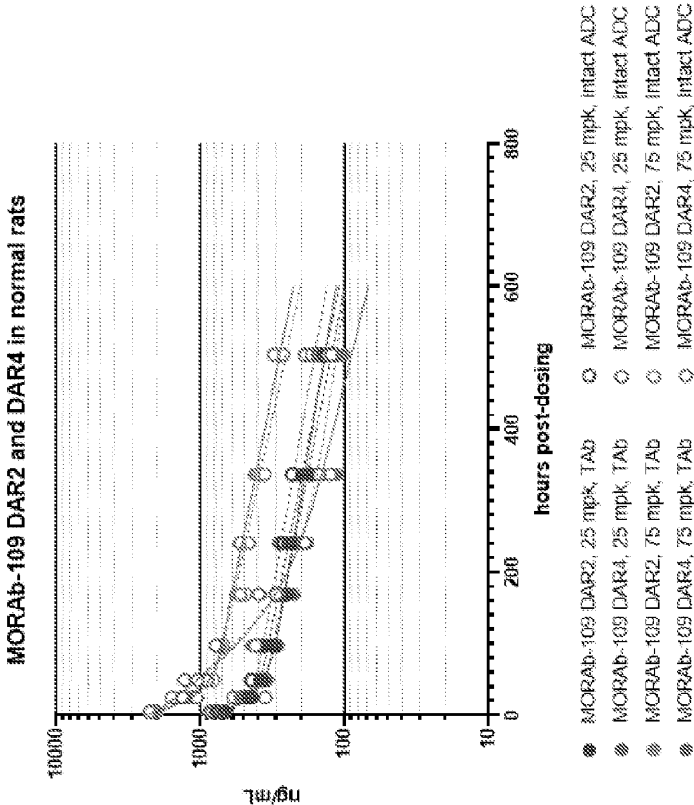


FIG. 11A

	25 mpk		75 mpk	
	MORAb-109 DAR2 IAb	MORAb-109 DAR2 Intact ADC	MORAb-109 DAR4 IAb	MORAb-109 DAR4 Intact ADC
AUC (hr*ug/mL)	176690	192454	227225	227261
CL (mL/hr/kg)	0.1415	0.1299	0.1268	0.1100
Beta t _{1/2} (hr)	305	308	362	341
V _{ss} (mL/kg)	60	56	63	53
C _{max} (ug/mL)	754	851	780	1012

FIG. 11B

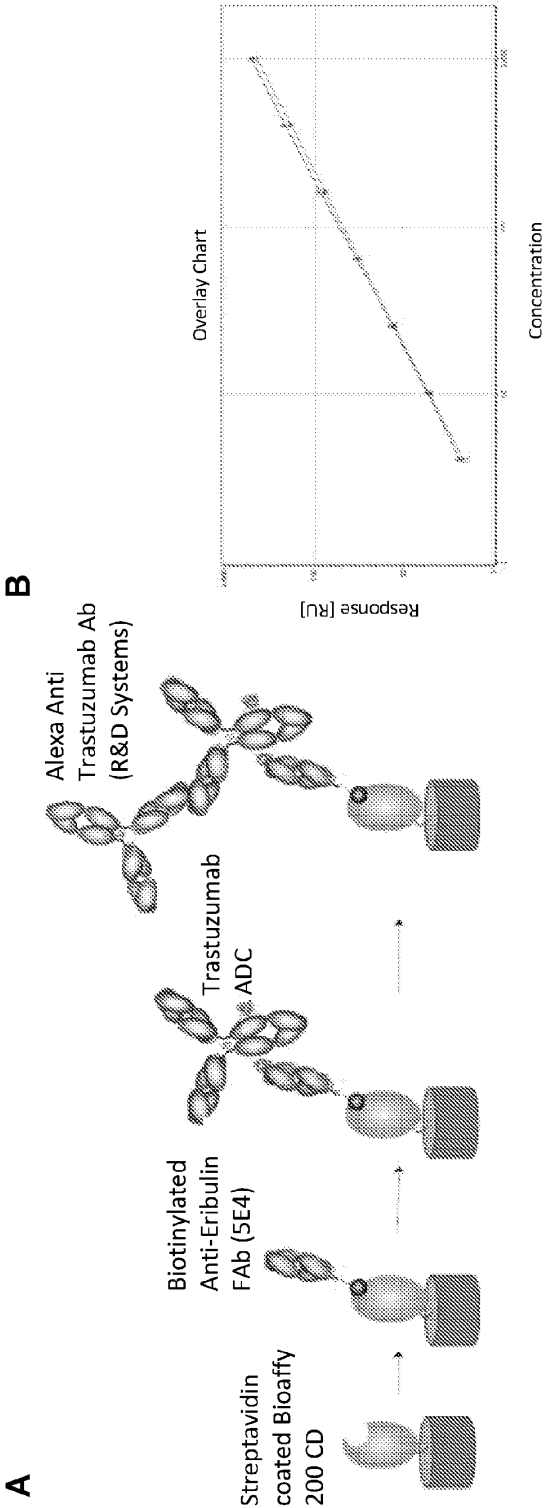


FIG. 12

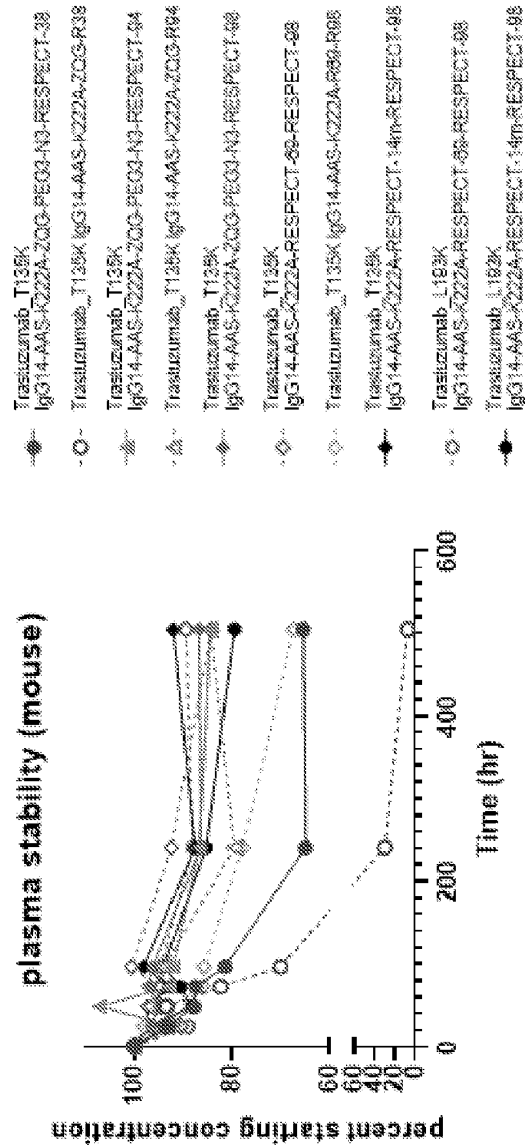


FIG.
13A

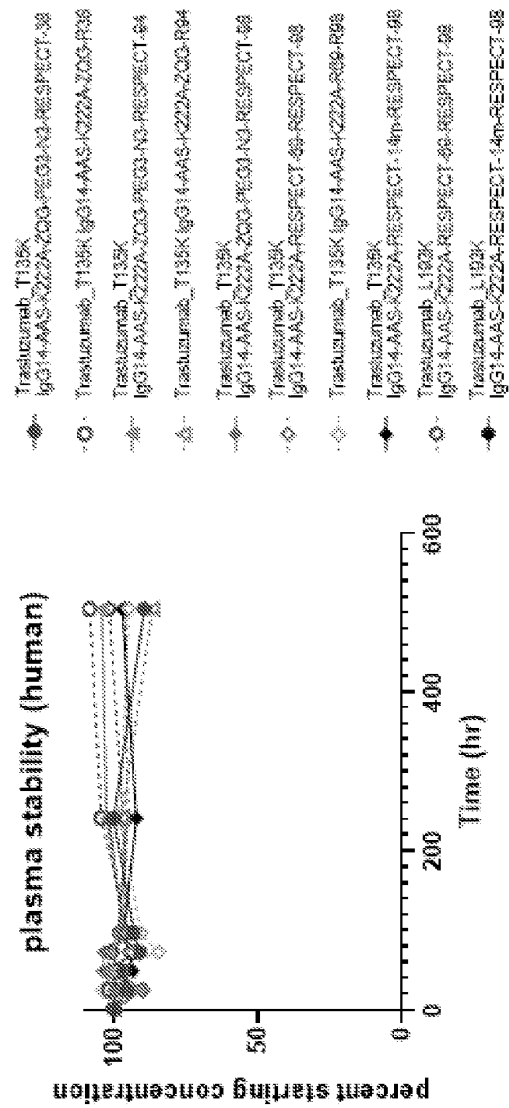


FIG. 13A (continued)

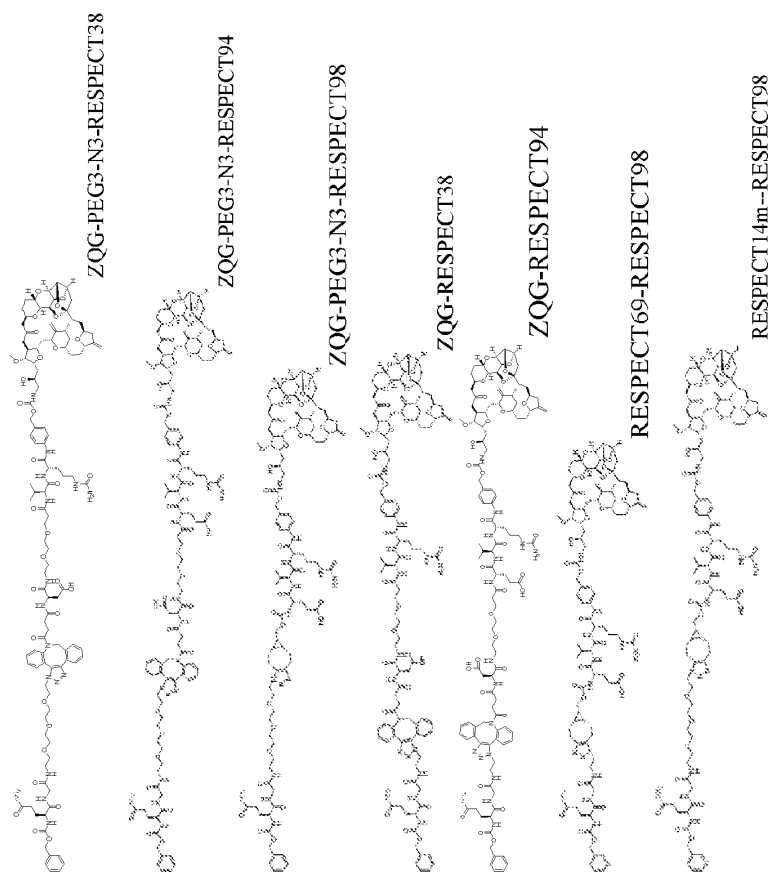


FIG. 13B

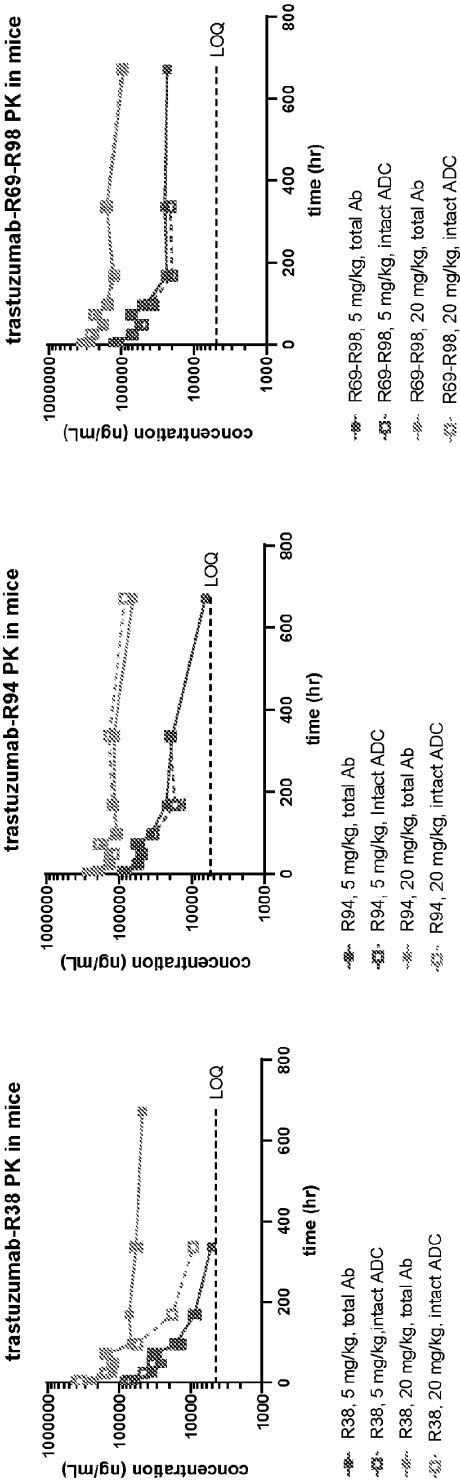


FIG. 13C

	Assay	Dose (mg/kg)	AUC (µg*Hours/ml)	AUC ratio (total/intact)	CL (ml/kg/Hours)	T _{1/2} (Hours)
Trastuzumab_T135K IgG14-AAS-K222A-ZQ5-R38	total Ab	5	61217461.5	1.31334408	0.796248	115.111775
Trastuzumab_T135K IgG14-AAS-K222A-ZQ5-R38	Intact ADC	5	46602821.5		1.068257	41.591911
Trastuzumab_T135K IgG14-AAS-K222A-ZQ5-R38	total Ab	20	494008175	2.38882746139	0.264032	306.972557
Trastuzumab_T135K IgG14-AAS-K222A-ZQ5-R38	Intact ADC	20	205399530		0.798283	97.369827
Trastuzumab_T135K IgG14-AAS-K222A-ZQ5-R94	total Ab	5	13644835	1.3241236031	0.34004	160.636022
Trastuzumab_T135K IgG14-AAS-K222A-ZQ5-R94	Intact ADC	5	12138134.5		0.410042	93.302537
Trastuzumab_T135K IgG14-AAS-K222A-ZQ5-R94	total Ab	20	73098440	0.284497166%	0.173053	457.755516
Trastuzumab_T135K IgG14-AAS-K222A-ZQ5-R94	Intact ADC	20	81720075		0.125396	642.405809
Trastuzumab_T135K IgG14-AAS-K222A-R69-R98	total Ab	5	188016775	1.327195724	0.202094	240.528524
Trastuzumab_T135K IgG14-AAS-K222A-R69-R98	Intact ADC	5	14089432		0.35161	87.984291
Trastuzumab_T135K IgG14-AAS-K222A-R69-R98	total Ab	20	97777750	0.388377534	0.127024	448.38961
Trastuzumab_T135K IgG14-AAS-K222A-R69-R98	Intact ADC	20	96224275		0.120387	471.679203

FIG. 13D

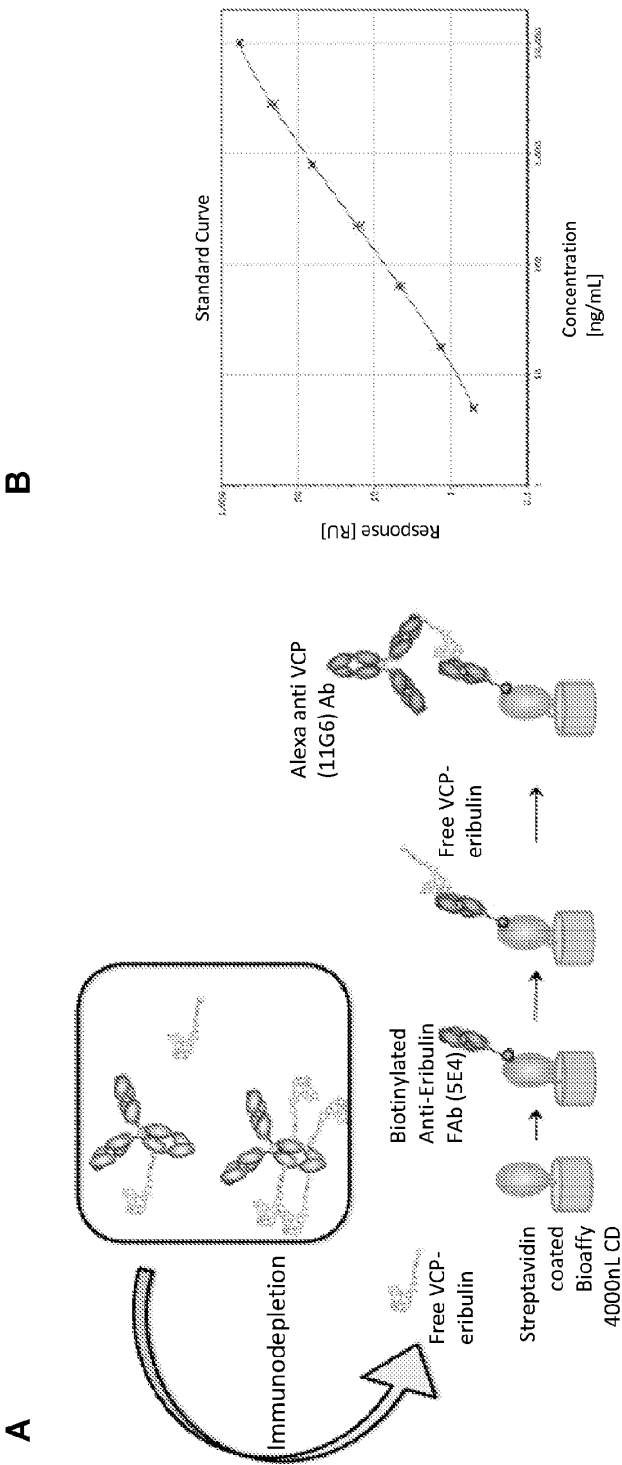


FIG. 14

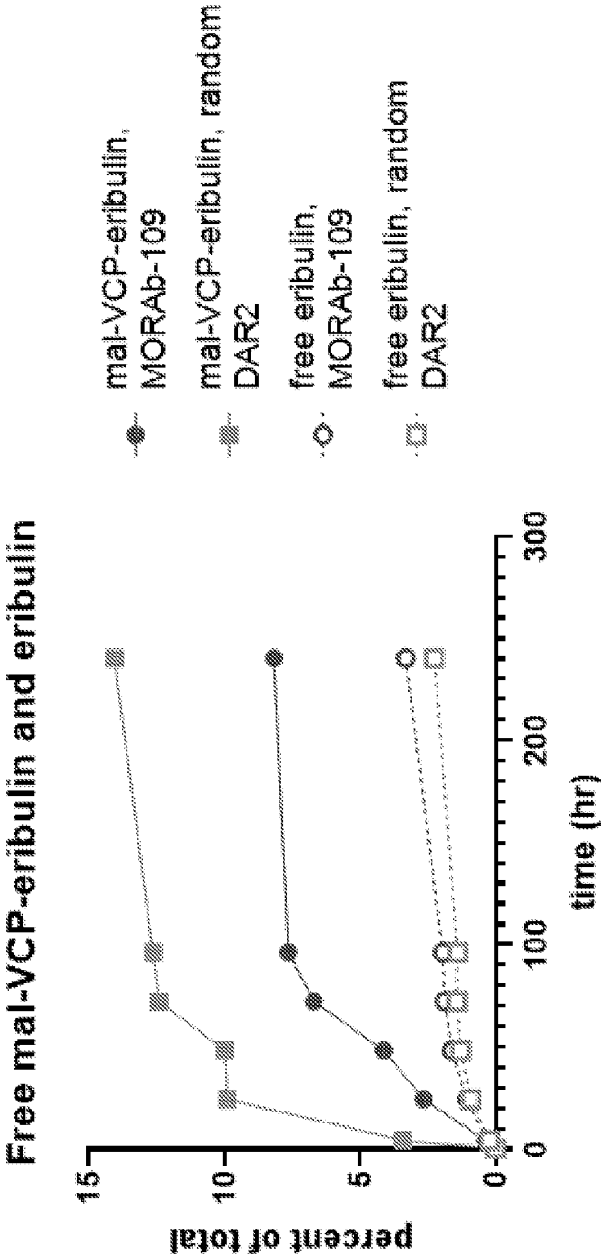


FIG. 15A

DAR shift and percent maleimide hydrolysis
of MORAb-109 in mouse plasma

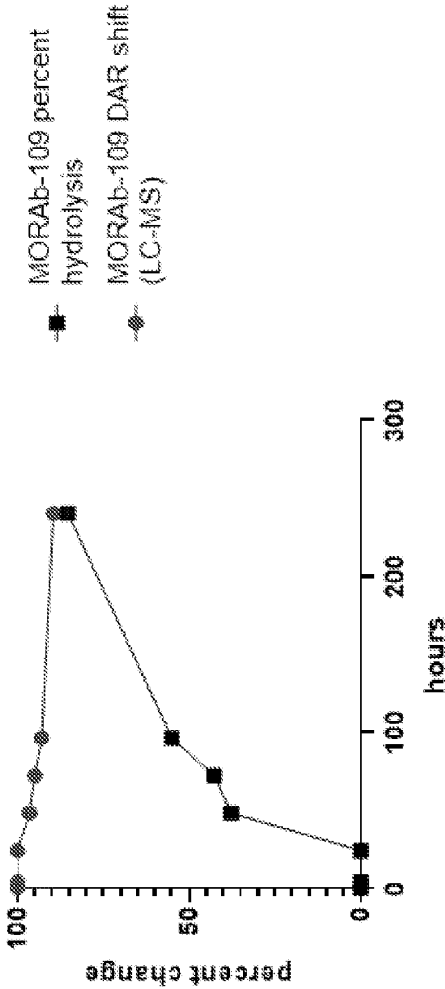


FIG. 15B

Free eribulin and mal-PEG₂-VCP-eribulin
from MORAb-109 in mouse plasma

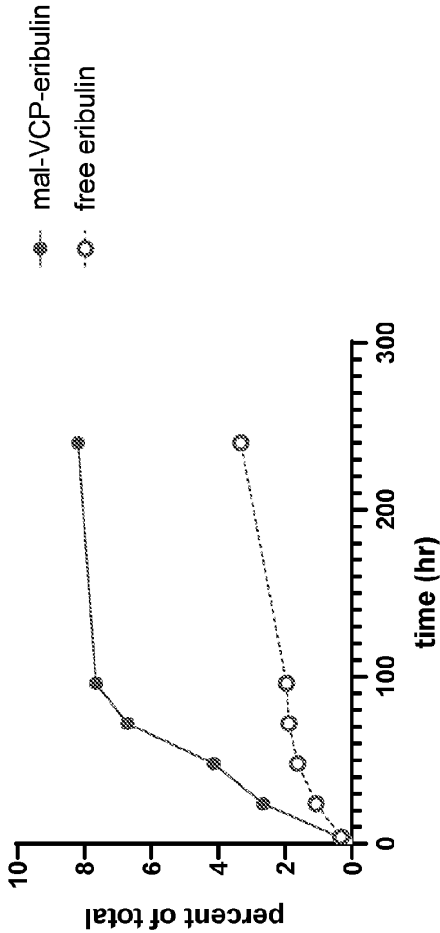


FIG. 15C

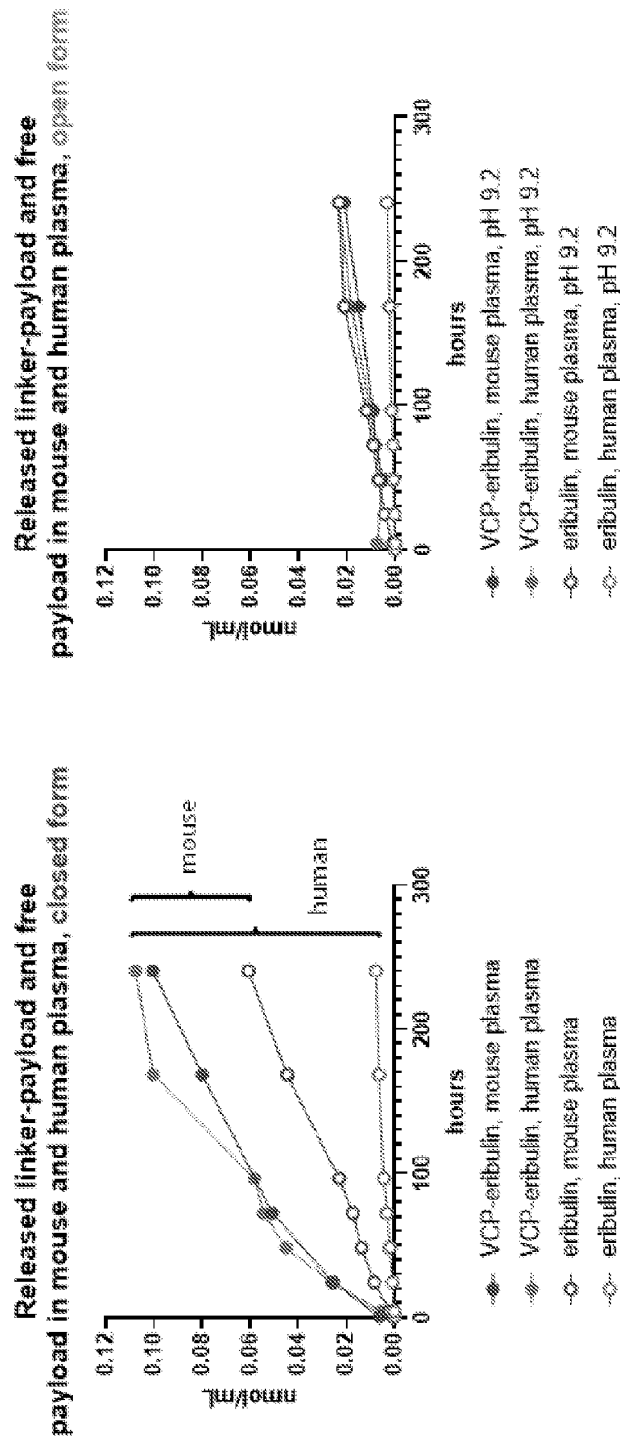


FIG. 16

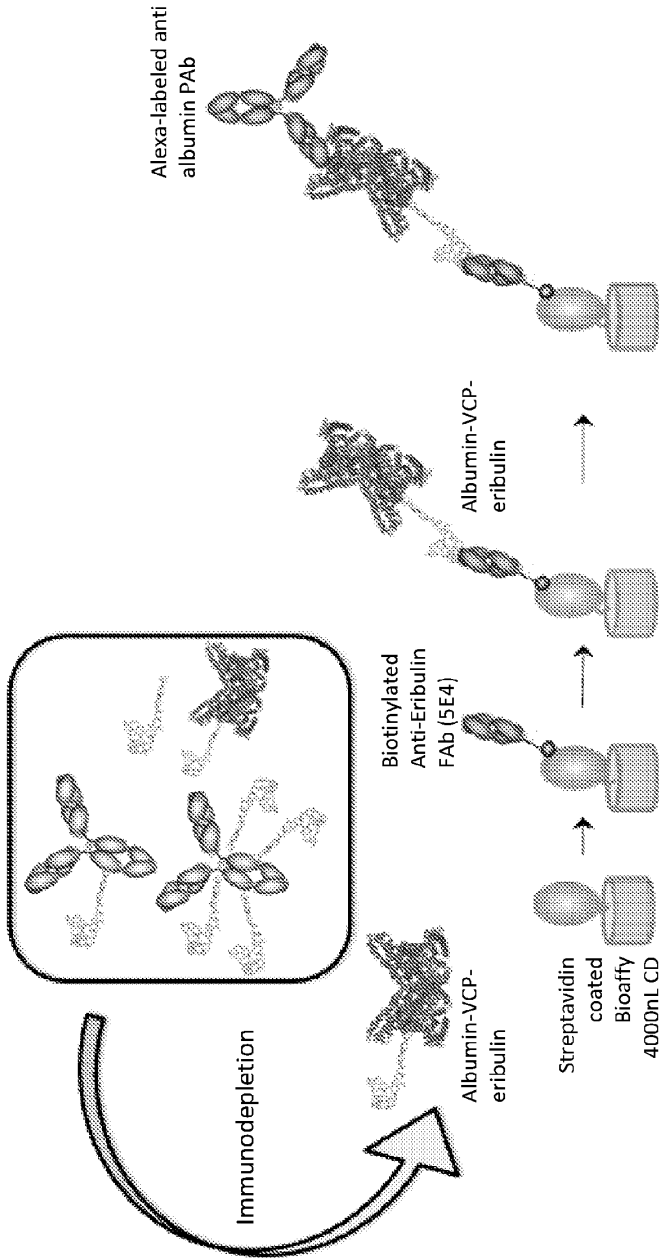


FIG. 17

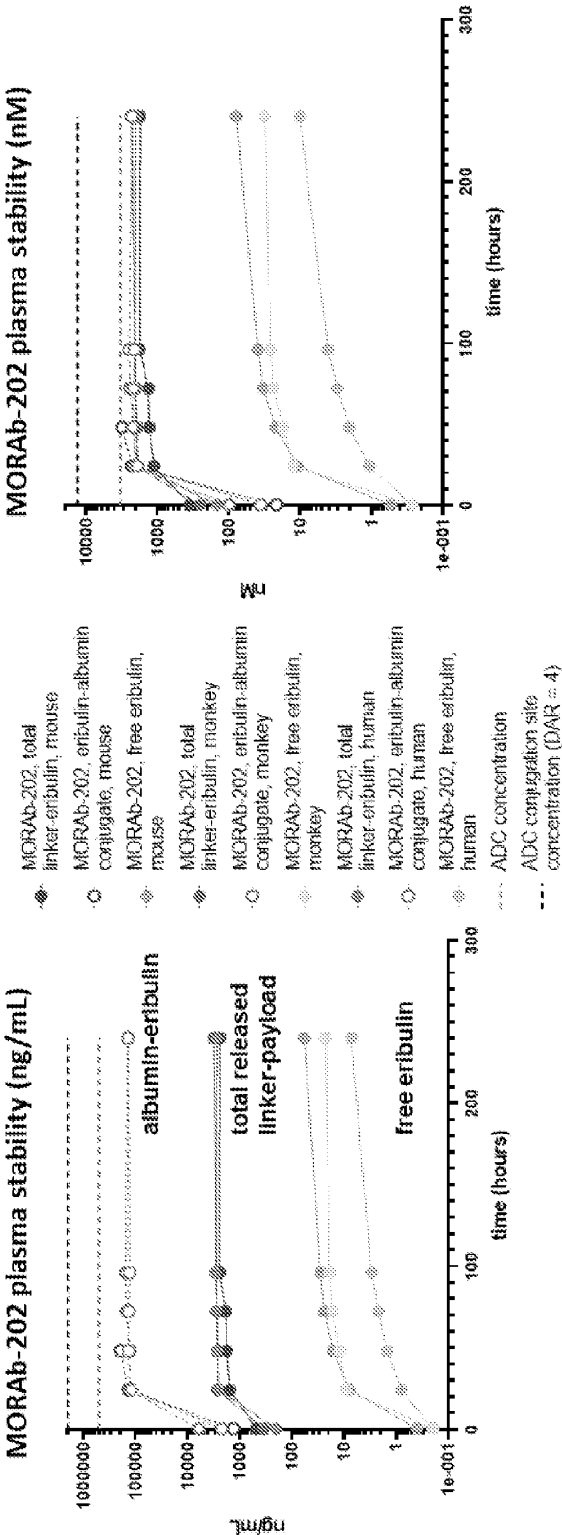


FIG. 18A

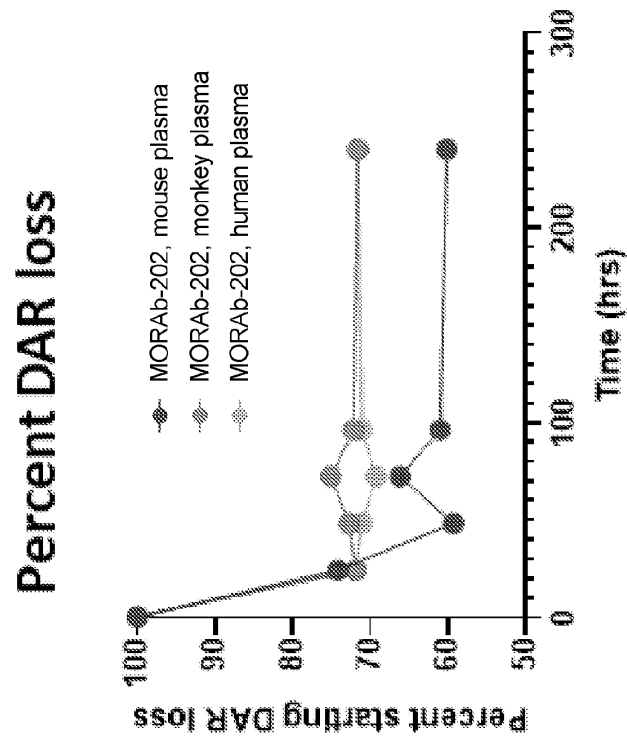


FIG. 18B

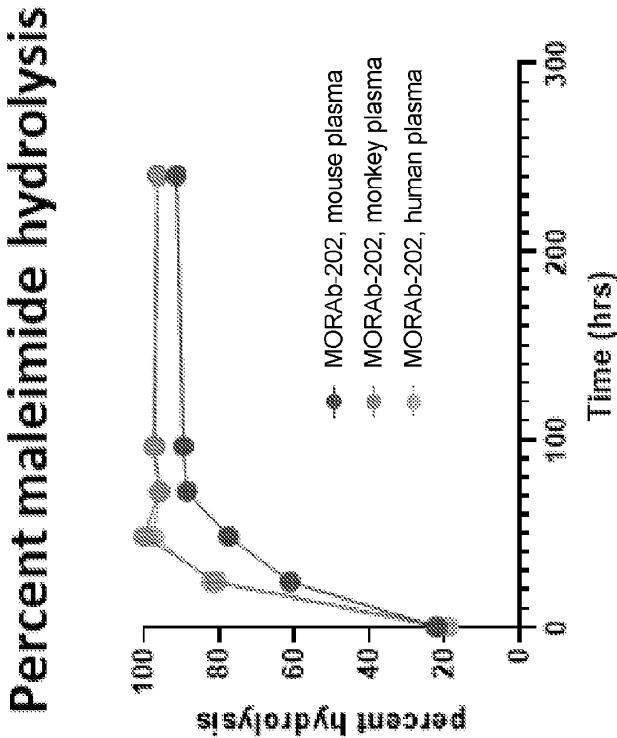


FIG. 18C

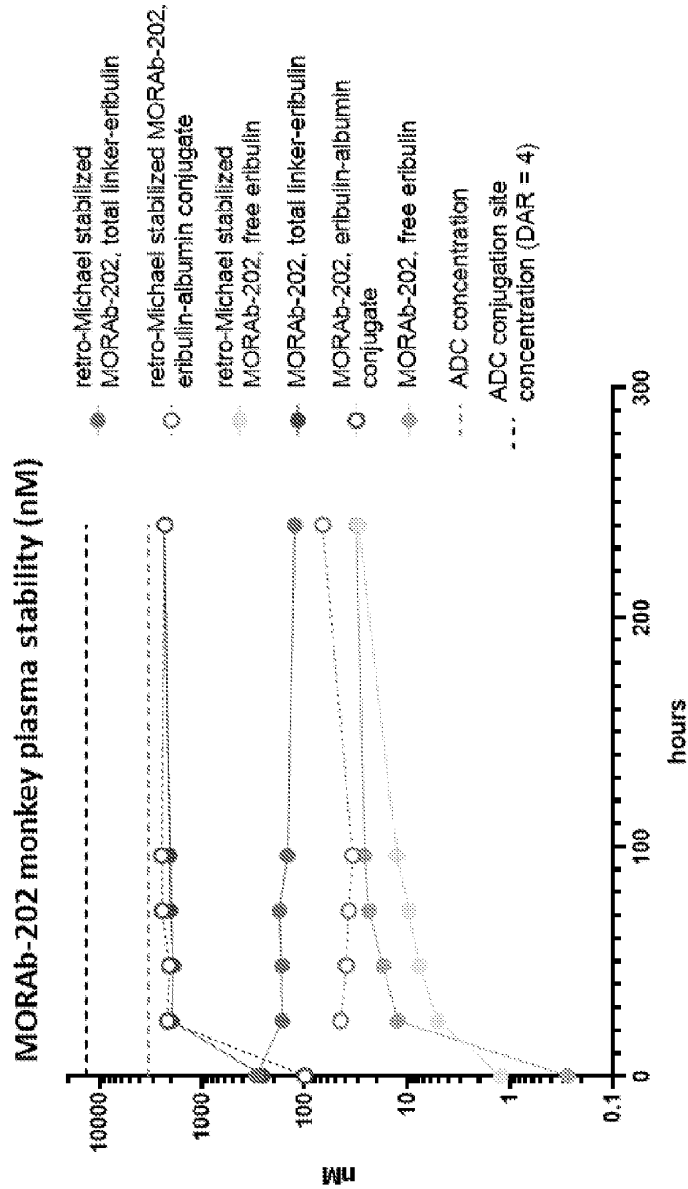


FIG. 18D

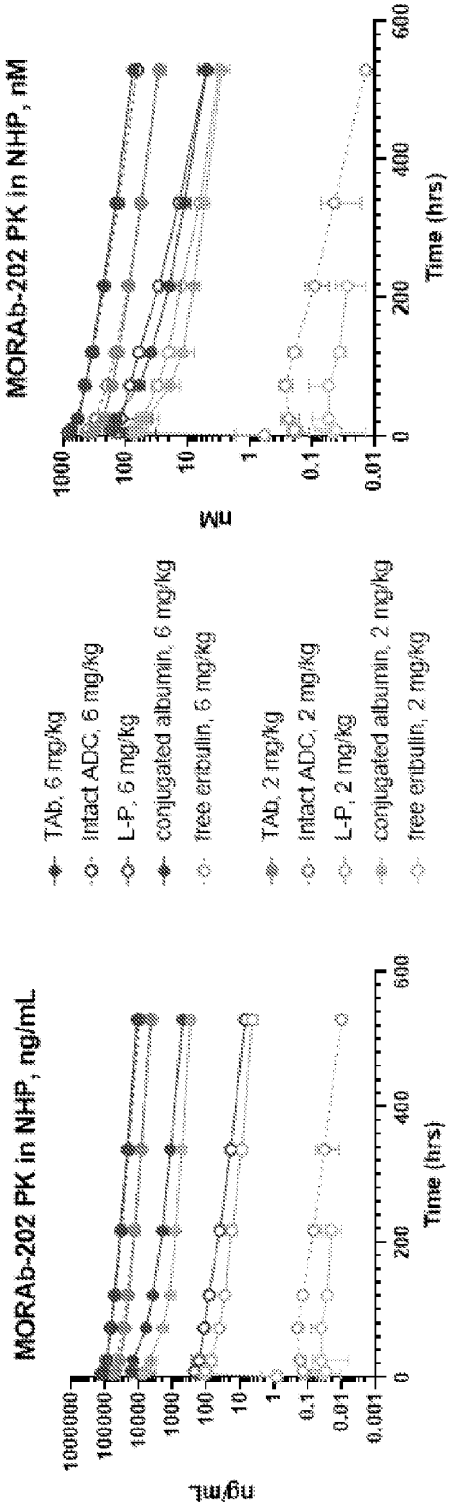


FIG. 19A

	5 mg/kg MORAb-202				2 mg/kg MORAb-202			
	total Ab	intact ADC	linker-payload	albumin-erythrin free erythrin	total Ab	intact ADC	linker-payload	albumin-erythrin free erythrin
AUC {hr*ug/mL}	22108	20784	79.8	1625	8506	9392	13.3	699
CL {mL/hr/kg}	0.28	0.30	4.73		0.25	0.23		0.0073
Alpha t _{1/2} {hr}	13	10	88	49	13	23	53	22
Beta t _{1/2} {hr}	176	157	425	190	183	172	217	216
Vss {mL/kg}	67	63			59	47		
C _{max} {ug/mL}	135	140	0.199	13.1	56	67	0.108	8.1
T _{max} {hr}								50

FIG. 19B

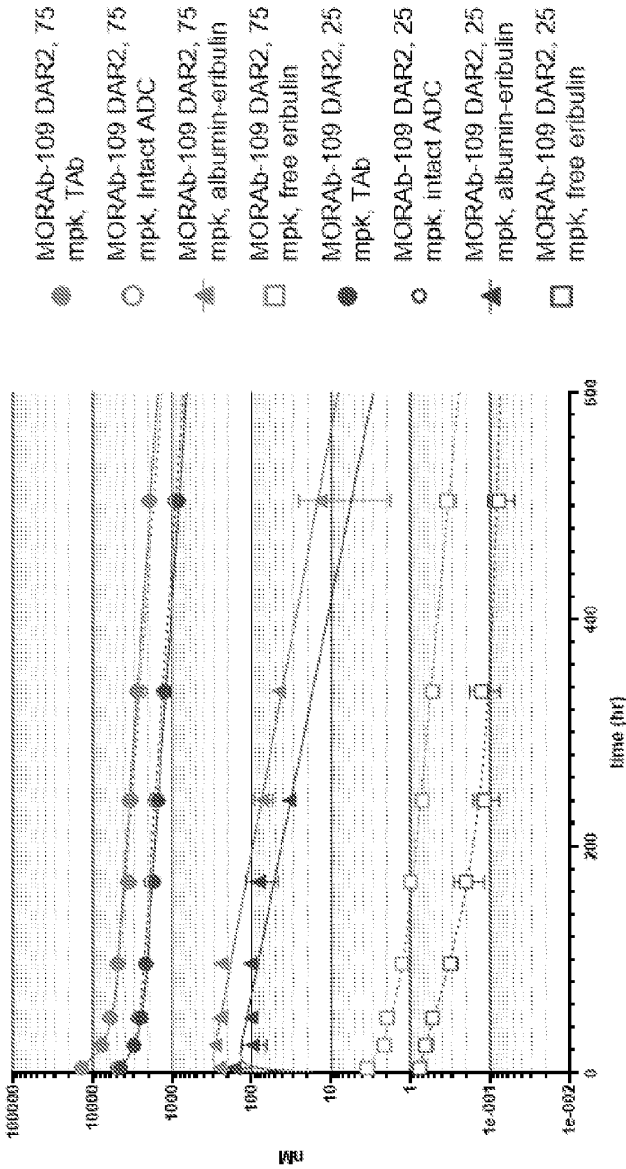


FIG. 20A

	25 mpk				75 mpk			
	MORAb-109 DAR2				MORAb-109 DAR2			
	Tab	Intact ADC	albumin-eribulin	free eribulin	Tab	Intact ADC	albumin-eribulin	free eribulin
AUC (hr*ug/mL)	176690	192454	1537	0.144	413313	384537	3507	0.4187
CL (mL/hr/kg)	0.1415	0.1299			0.1815	0.1950		
Beta t _{1/2} (hr)	305	308	105	765	304	282	112	225
V _{ss} (mL/kg)	60	56			75	74		
C _{max} (ug/mL)	754	851	9.1	0.00061	2399	2426	20.1	0.00263

FIG. 20B

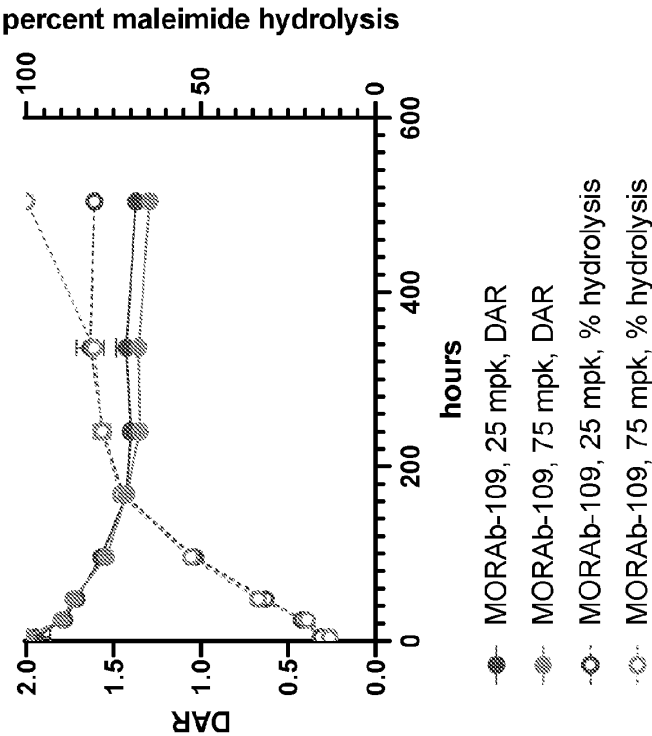


FIG. 20C

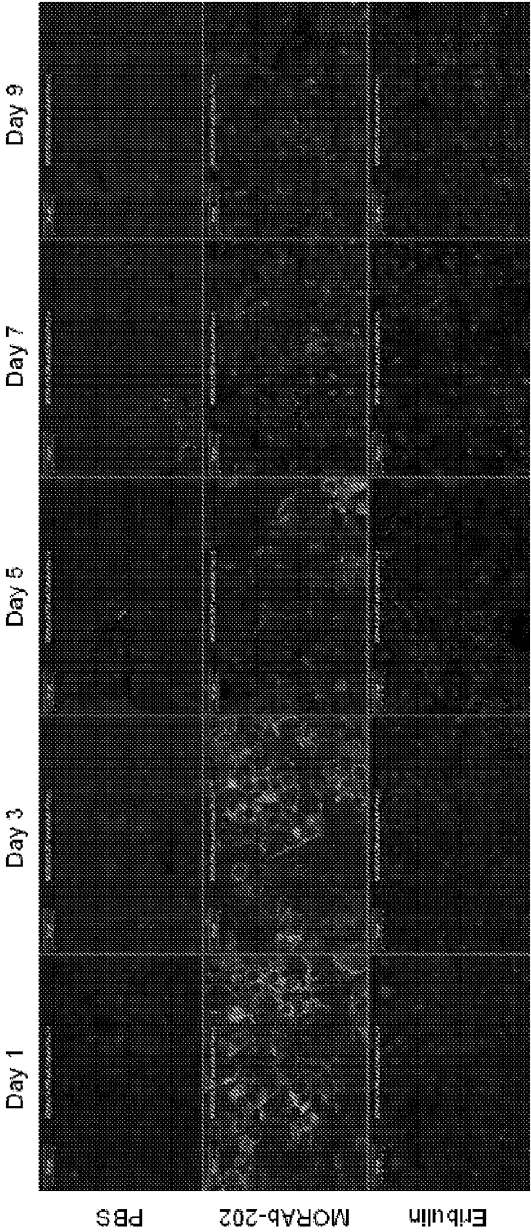


FIG. 21

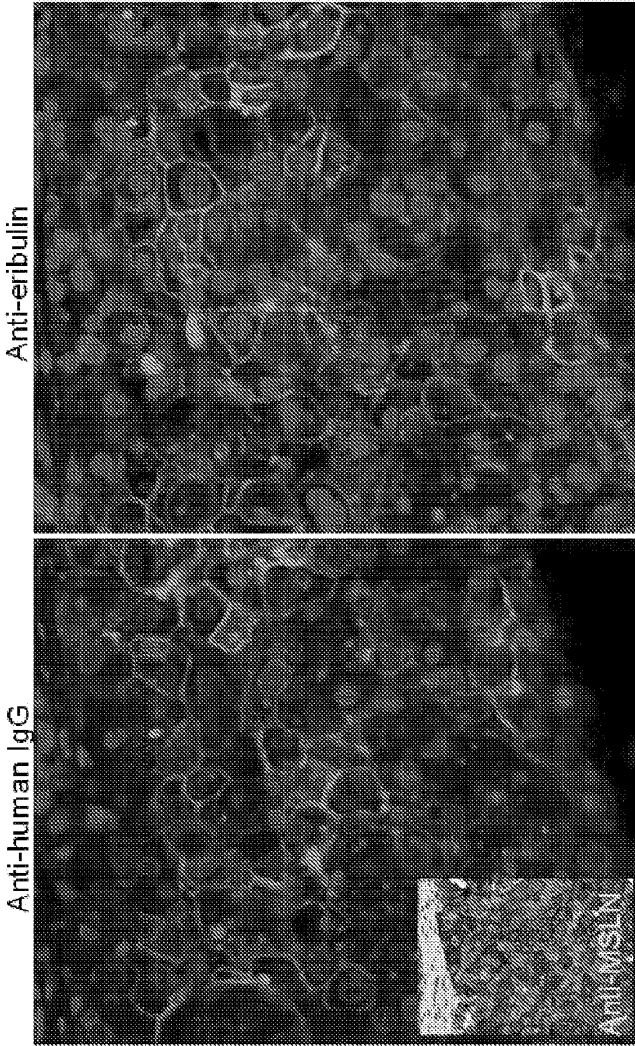


FIG. 22

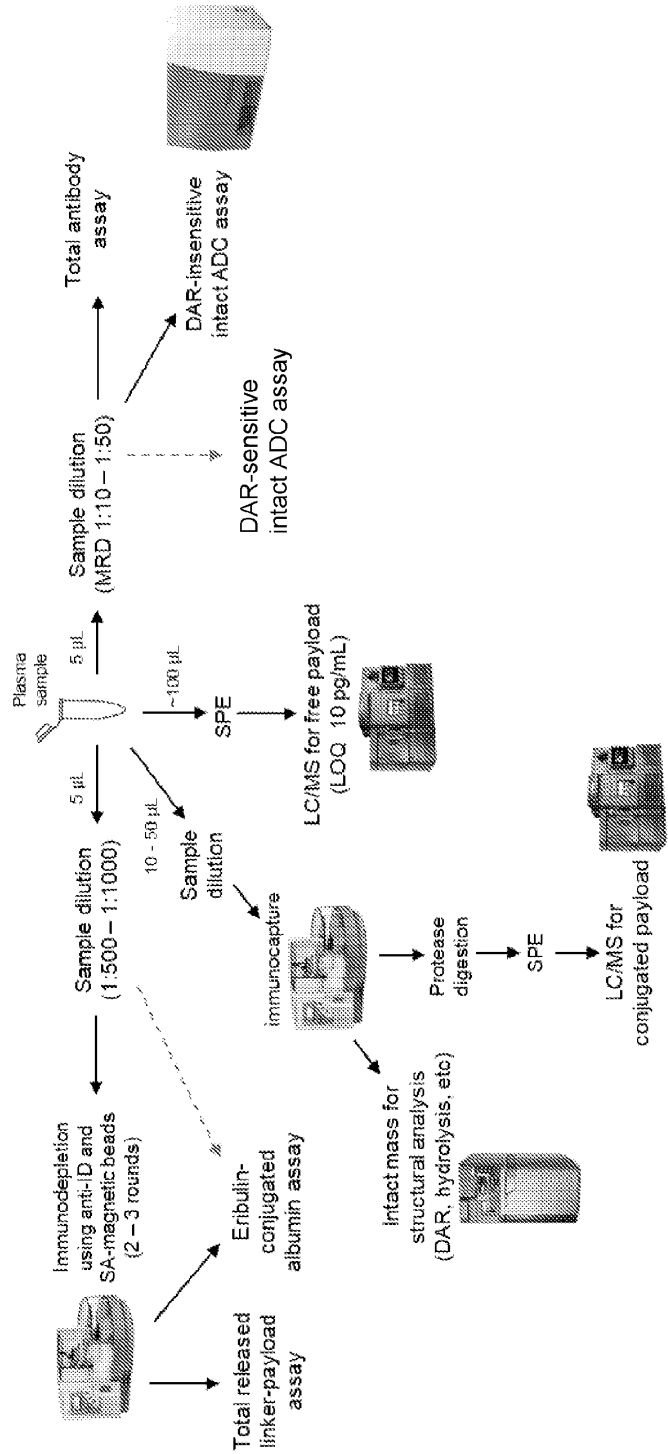


FIG. 23