

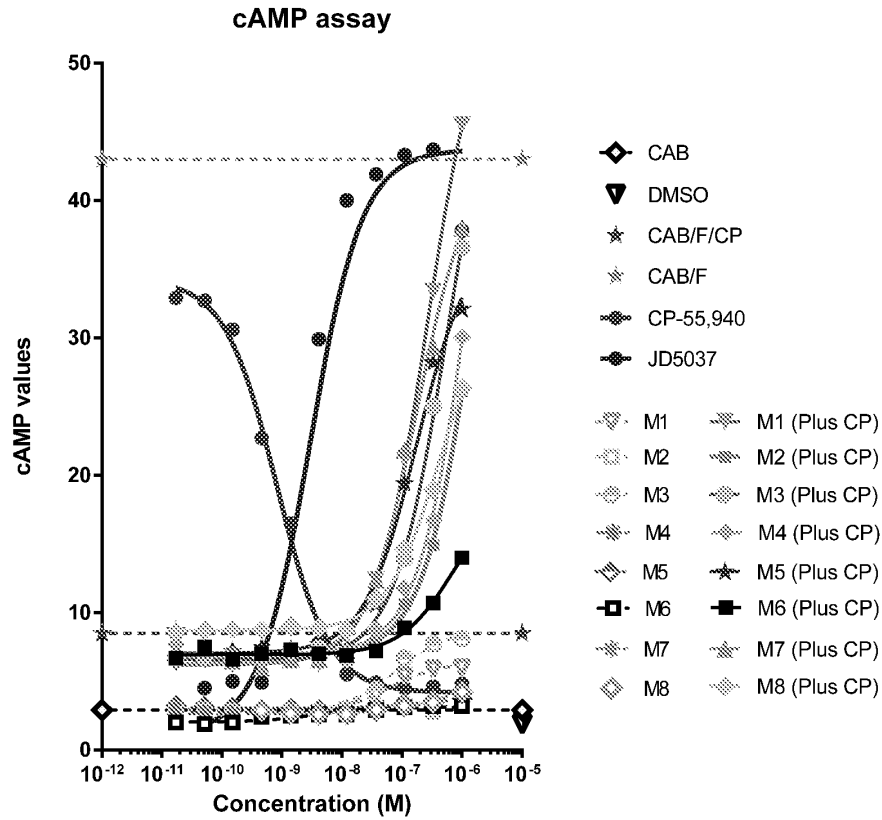


FIG. 1

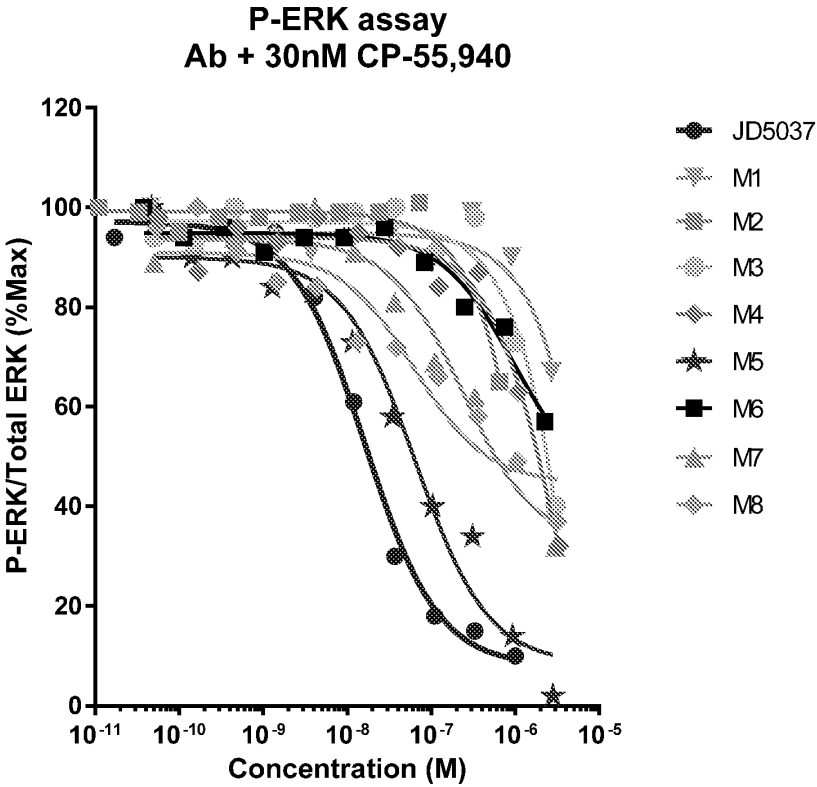


FIG. 2

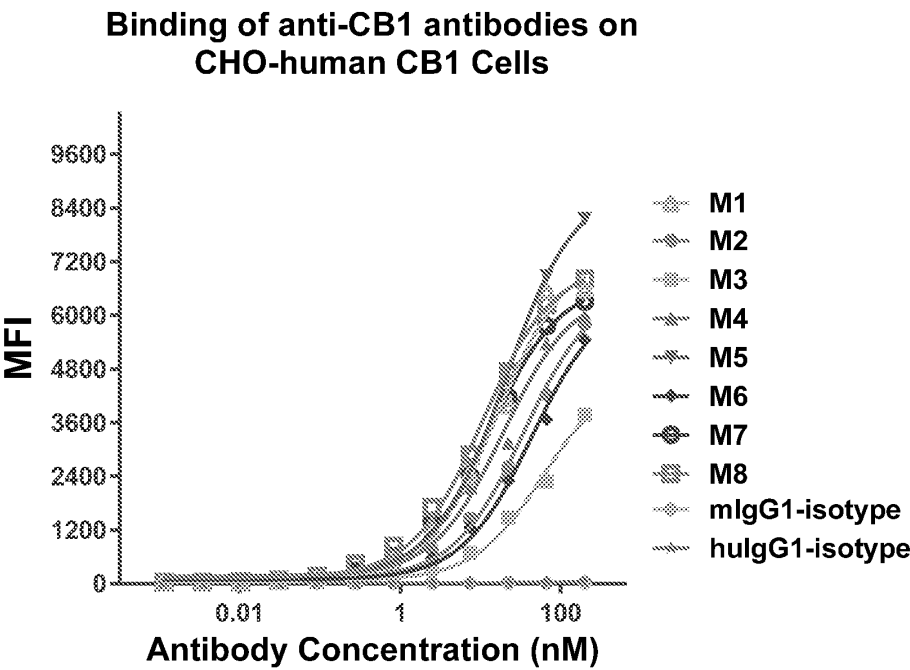


FIG. 3A

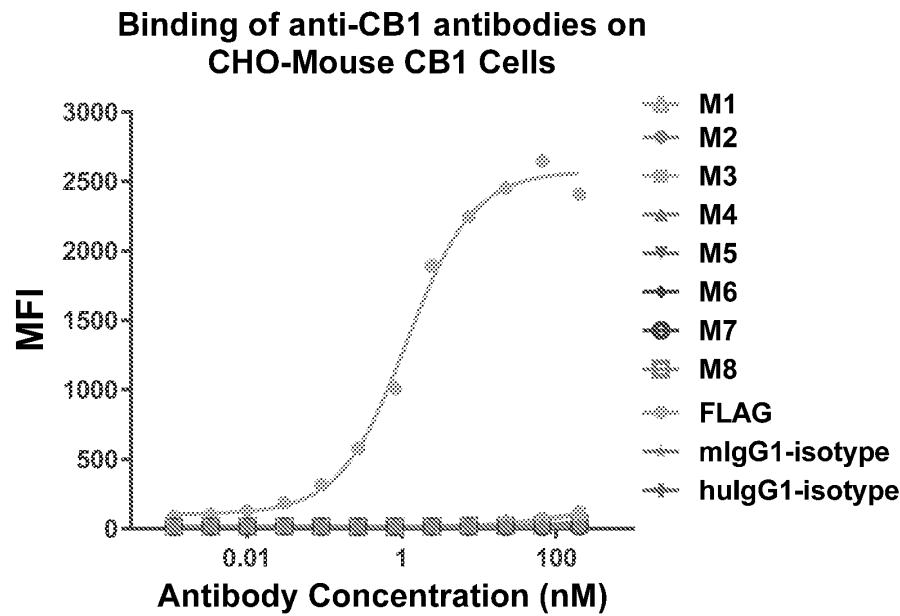


FIG.3B

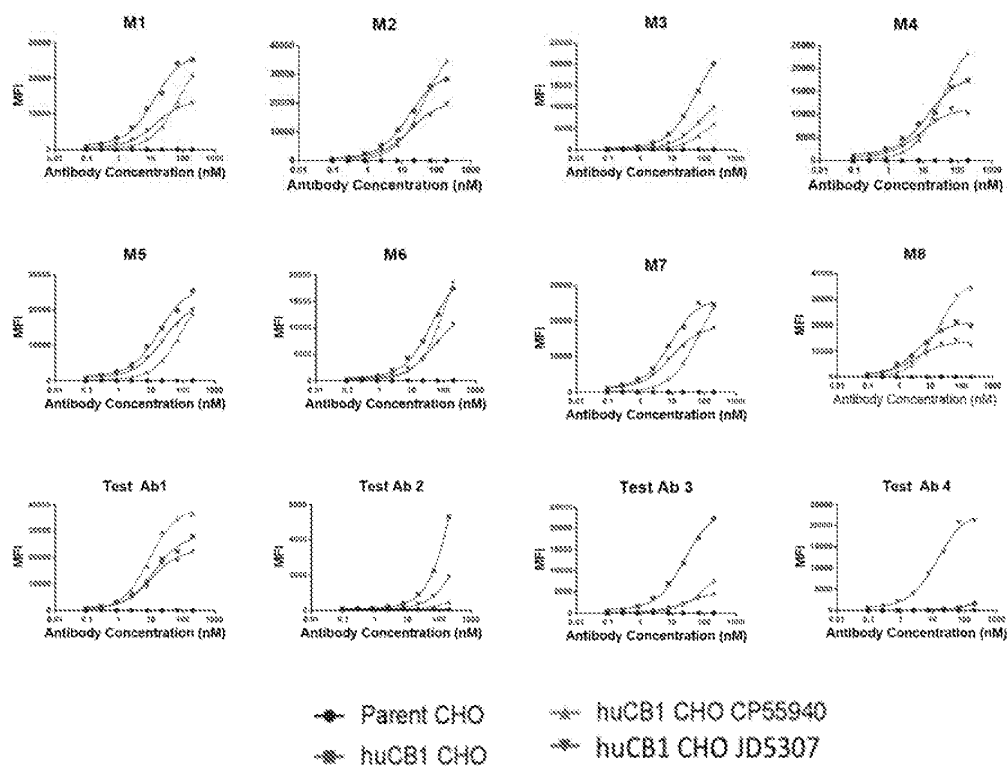


FIG. 4

Hybridoma Heavy Chains

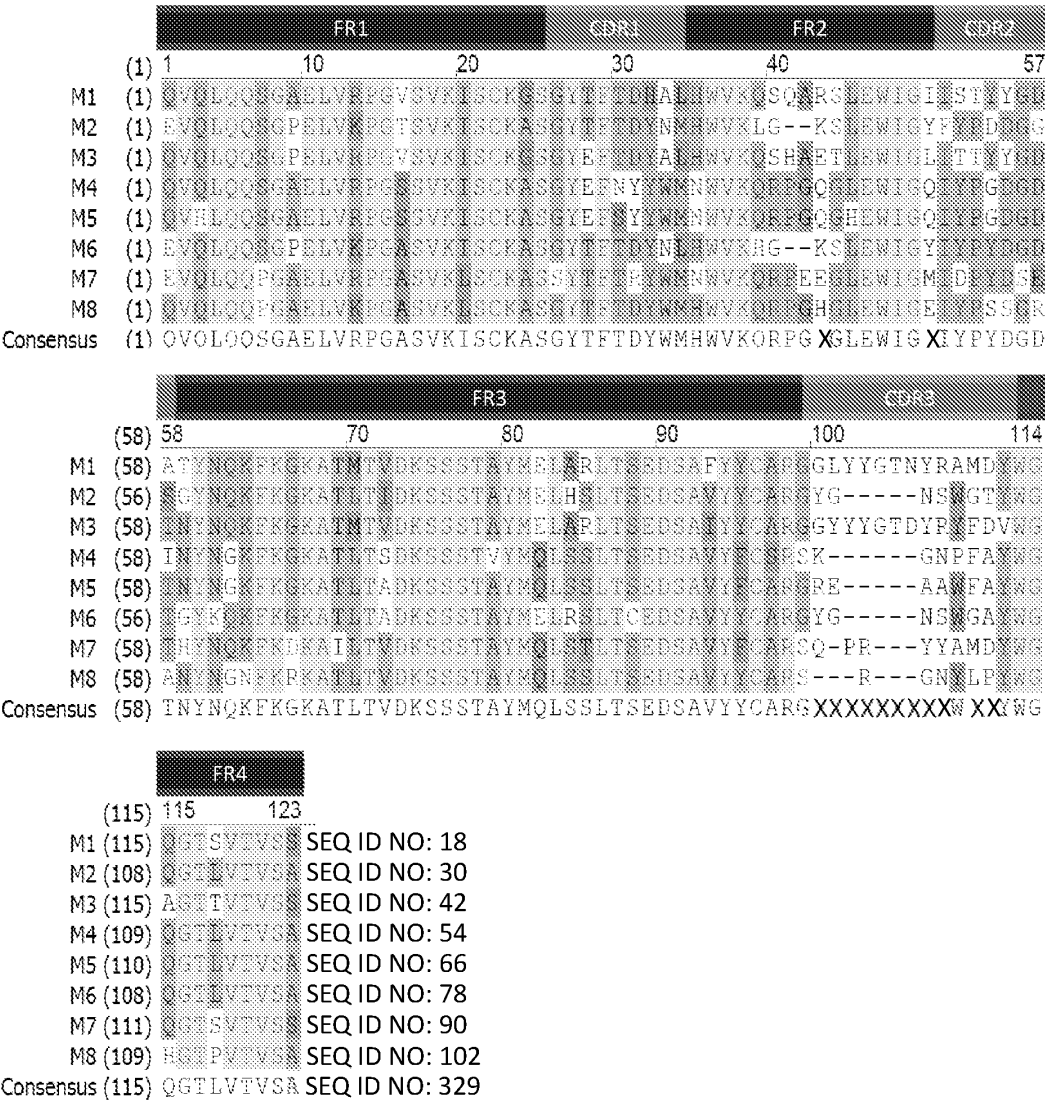
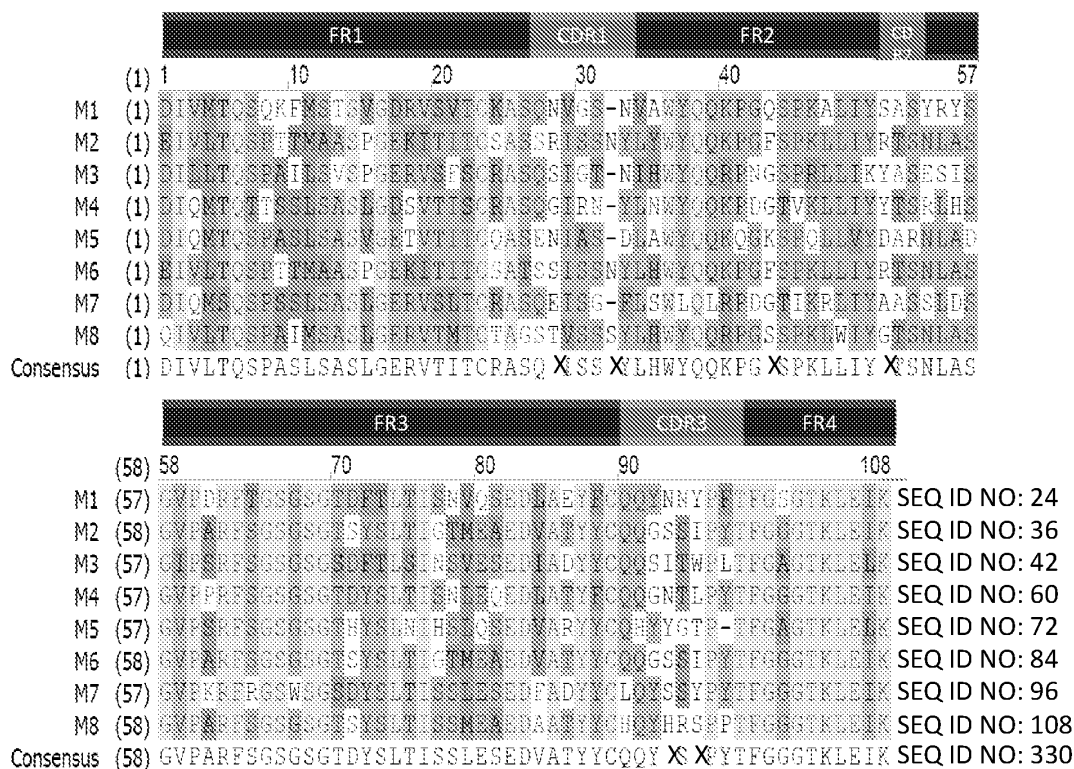


FIG. 5A



Humanized Heavy Chains

		FR1										CDR										FR2										CDR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
(1)	1	10	20	30	40	57																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															</

FIG. 6A

Humanized Light Chains

		FR1										CDR1										FR2										C																											
	(1)	1	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440	450	460	470	480	490	500	510	520	530	540	550	560	570
M7-H1	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M7-H2	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M7-H3	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M7-H4	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M7-H5	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M7-H6	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M7-H7	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M7-H8	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M7-H9	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M7-H10	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M7-H11	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M7-H12	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M7-H13	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M7-H14	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M7-H15	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M7-H16	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						
M5-H1	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	S	F	R	Y	S	---	L	H	W	Y	Q	Q	K	P	L	K	I	K	Y	A	A	S	N				
M5-H2	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	---	S	F	R	Y	S	---	L	H	W	Y	Q	Q	K	P	L	K	I	K	Y	A	A	S	N				
Consensus	(1)	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	L	F	C	R	A	S	Q	E	I	S	XXXX	F	L	S	W	L	Q	L	K	P	G	K	A	I	K	R	L	Y	A	A	S	S						

		FR3										CDR3										FR4										C																						
	(58)	58	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440	450	460	470	480	490	500	510	520	530	540	550	560	570
M7-H1	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 120	
M7-H2	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 132	
M7-H3	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 144	
M7-H4	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 156	
M7-H5	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 168	
M7-H6	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 180	
M7-H7	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 192	
M7-H8	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 204	
M7-H9	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 216	
M7-H10	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 228	
M7-H11	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 240	
M7-H12	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 252	
M7-H13	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 264	
M7-H14	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 276	
M7-H15	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 288	
M7-H16	(54)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 300	
M5-H1	(58)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P	Y	T	F	G	G	T	K	L	E	I	K	SEQ ID NO: 312	
M5-H2	(58)	L	D	S	G	V	P	S	R	F	S	G	S	N	S	G	T	D	Y	T	L	T	I	S	S	L	Q	P	E	D	F	A	D	Y	C	L	Q	Y	S	S	P</													

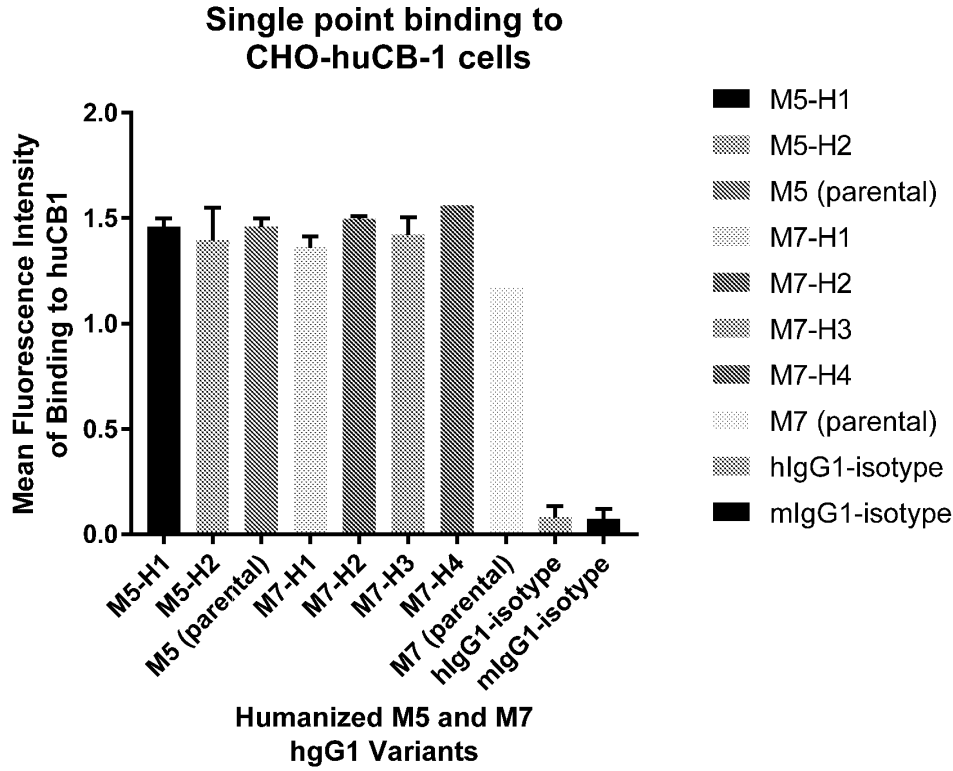


FIG. 7A

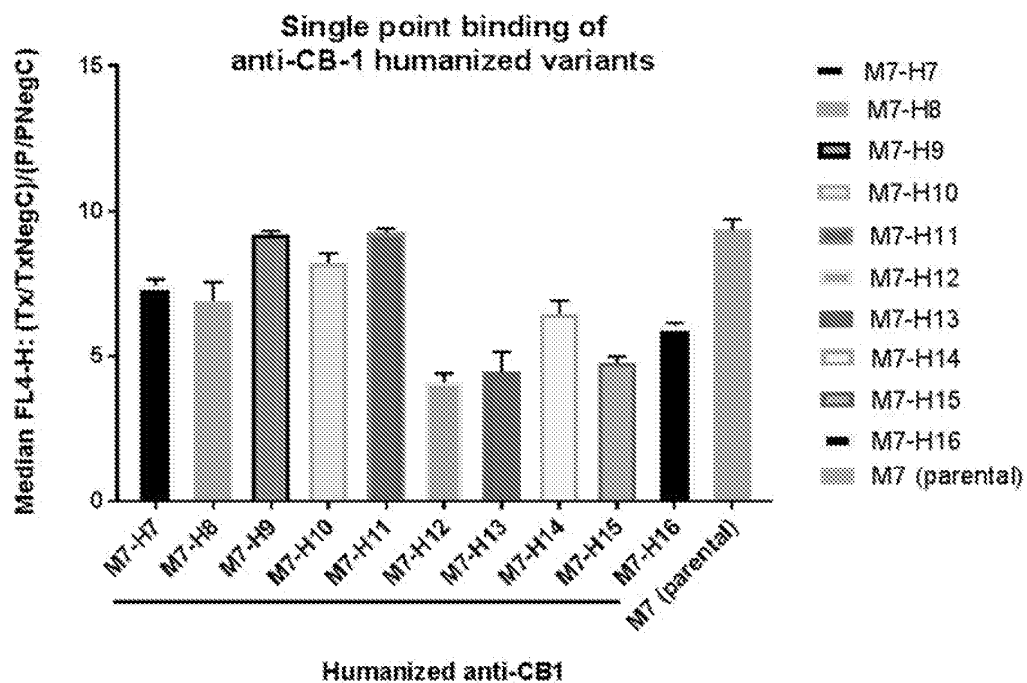


FIG. 7B

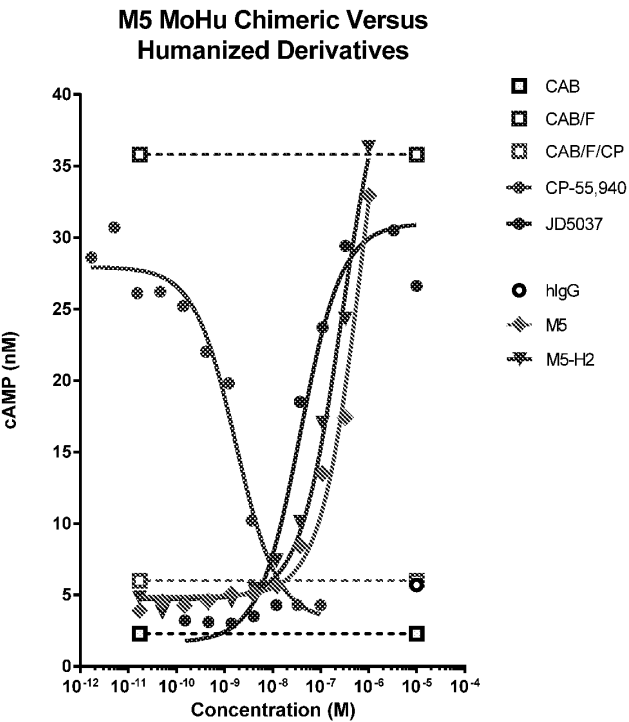


FIG. 8A

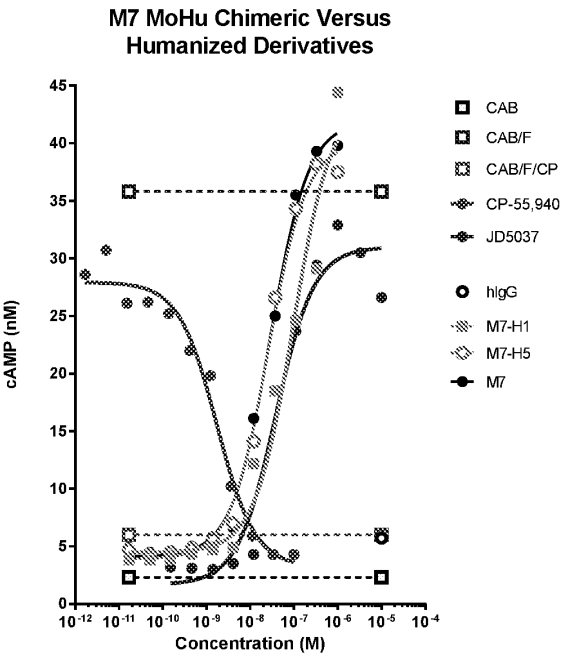


FIG. 8B

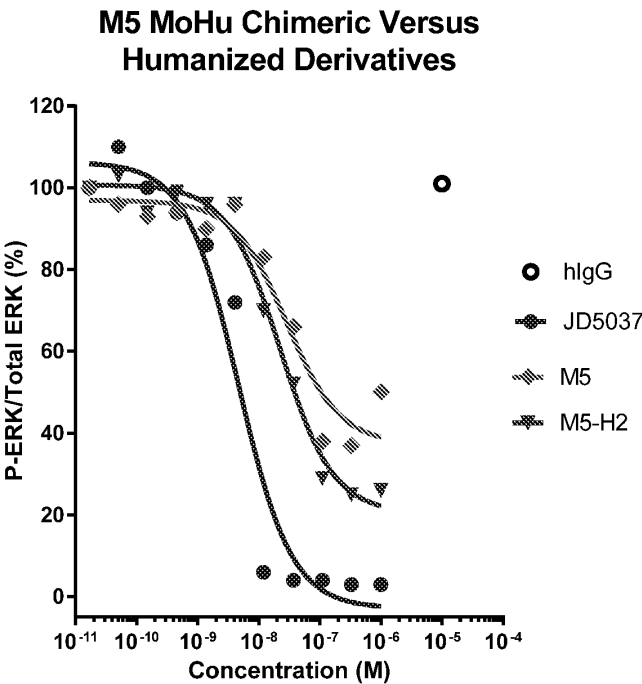


FIG. 9A

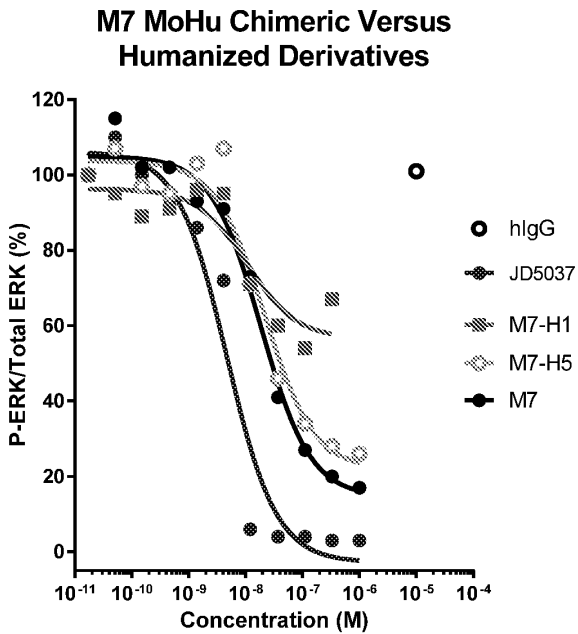


FIG. 9B

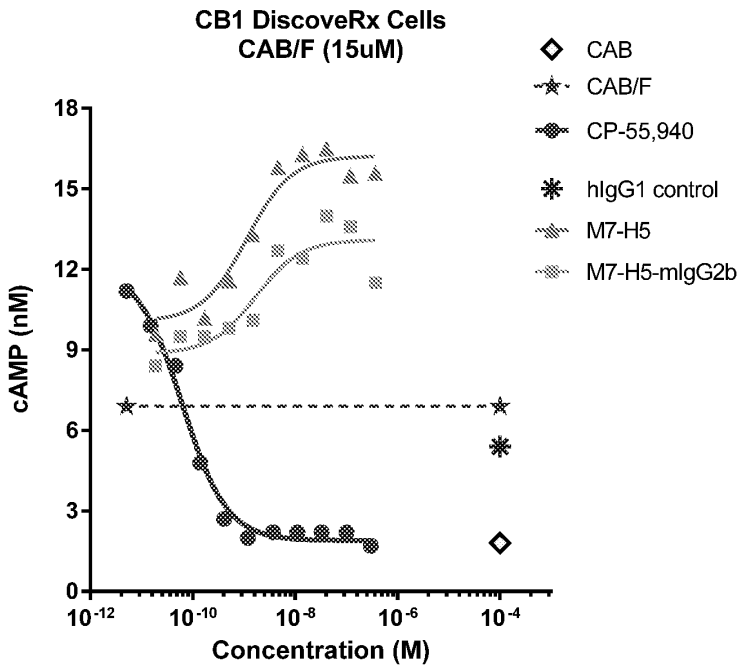


FIG. 10