

Fig. 1

Fig. 1A

C51 Gene Sequence (Heavy Chain) (SEQ ID NO.: 7)

CAGGTGAAACTGCAGGAGTCAGGACCTGACCAGGTGAAACCCTCTCAGTCACTTT
 CACTCACCTGCACTGTCAGTGTTCTACTCCATCACCAGTGGTTATAGCTGGCACT
 GGATCCGGCAGTTTCCAGGAAACAACTGGAATGGATGGGCTACATACACTACA
GTGGTAGTACTAAGTACAACCCATCTCTCAAAAGTCGATTCTCTATCACTCGA
 GACACATCCAAGAACCAGTTCTTCCTGCAGTTGAATTCTGTGACTACTGAGGACA
 CAGCCACATATTACTGTGCAAGAGGGACCGACAATGCTGTGGACTACTGGGGC
 CAAGGGACCACGGTCACCGTCTCCTCA

C51 Gene Sequence (Light Chain) (SEQ ID NO.: 8)

GACATTGAGCTCACCCAGTCTCCATCCTCCCTAGCTGTGTCAGTTGGAGAGAAGG
 TTAATATGAGCTGCAAGTCCAGTCAGAGCCTTTTATATAGTAGCAATCAAAAG
AACTACTTGGCCTGGTACCAGCAGAAACCAGGGCAGTCTCCTAAATTGCTGATT
 TACTGGGCATCCAGTAGGGAATCTGGGGTCCCTGATCGCTTCACAGGCAGTGG
 ATCTGGGACAGATTTCACTCTCACCATCAGCAGTGTGAAGGCTGAAGACCTGGCA
 GTTTATTACTGTAGCAATATTATATCTATCCTCTCACGTTCGGTGCTGGGACC
 AAGCTGGAGCTGAAACGG

Fig. 1B

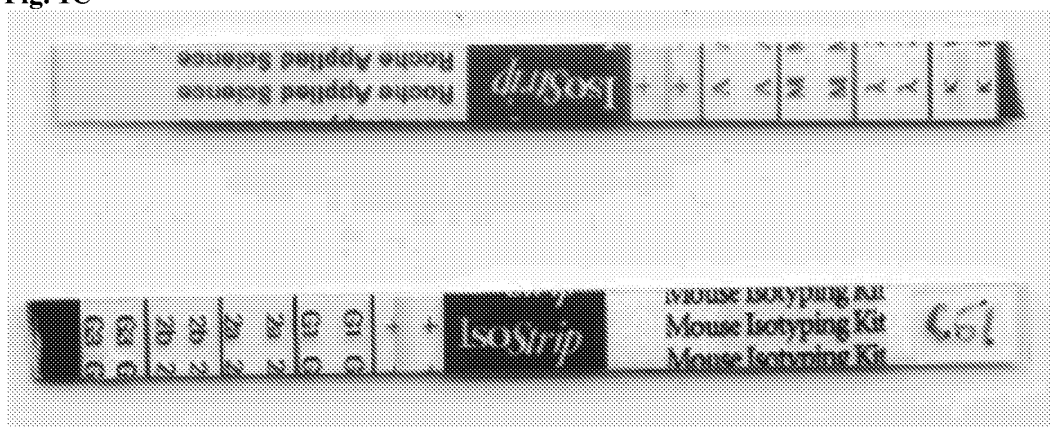
C51 Amino Acid Sequence (Heavy Chain) (SEQ ID NO.: 5)

QVKLQESGPDQVKPSQSLTCTVTVYSITSGYSWHWIRQFPGNKLEWMGYIHYSG
STKYNPSLKSRFISITRDTSKNQFFLQLNSVTTEDTATYYCARGGTDNAVDYWG
 QGTTVTVSS

C51 Amino Acid Sequence (Light Chain) (SEQ ID NO.: 6)

DIELTQSPSSLAVSVGEKVNMSCKSSOSLLYSSNOKNYLAWYQQKPGQSPKLLIYW
ASSRESGVPPDRFTGSGSGTDFTLTISSVKAEDLAVYYCQOYYIYPLTFGAGTKLEL
 KR

Fig. 1C



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Fig. 2

A

Breast Cancer Cell Lines										
C51	BT474	BT20	CAMA1	HCC1937	HCC1954	HCC2218	HS578T	MCF7	MDAMB231	SKBR3
	3	3	4	3	4	4	2	4	4	4
Colorectal Cancer Cell lines										
C51	COLO205	HCC2998	HCT115	HCT116	HT29	KM12	LS174T	SW620		
	1	0	0	0	2	2	2	2		
Kidney Cancer Cell lines										
C51	786O	A498	ACHN	CAK1	UO21	RFX293	SH12C	TK10		
	4	3	4	3	2	3	0	3		
Liver Cancer Cell lines				Normal Cell Lines						
C51	HEP3B	HEPG2	HUHT	PLC	IMR90	IOSE523	HEK293	HFF	HEP-2	HEP-3
	3	1	4	4	0	0	0	0	0	0
Ovarian Cancer Cell Lines										
C51	CAOV3	CH1	IGROV1	OV17R	OV98	OVCA432	OVCAR3	OVCAR8	OVCA433	PEA1
	3	0	3	0	2	3	3	4	2	3

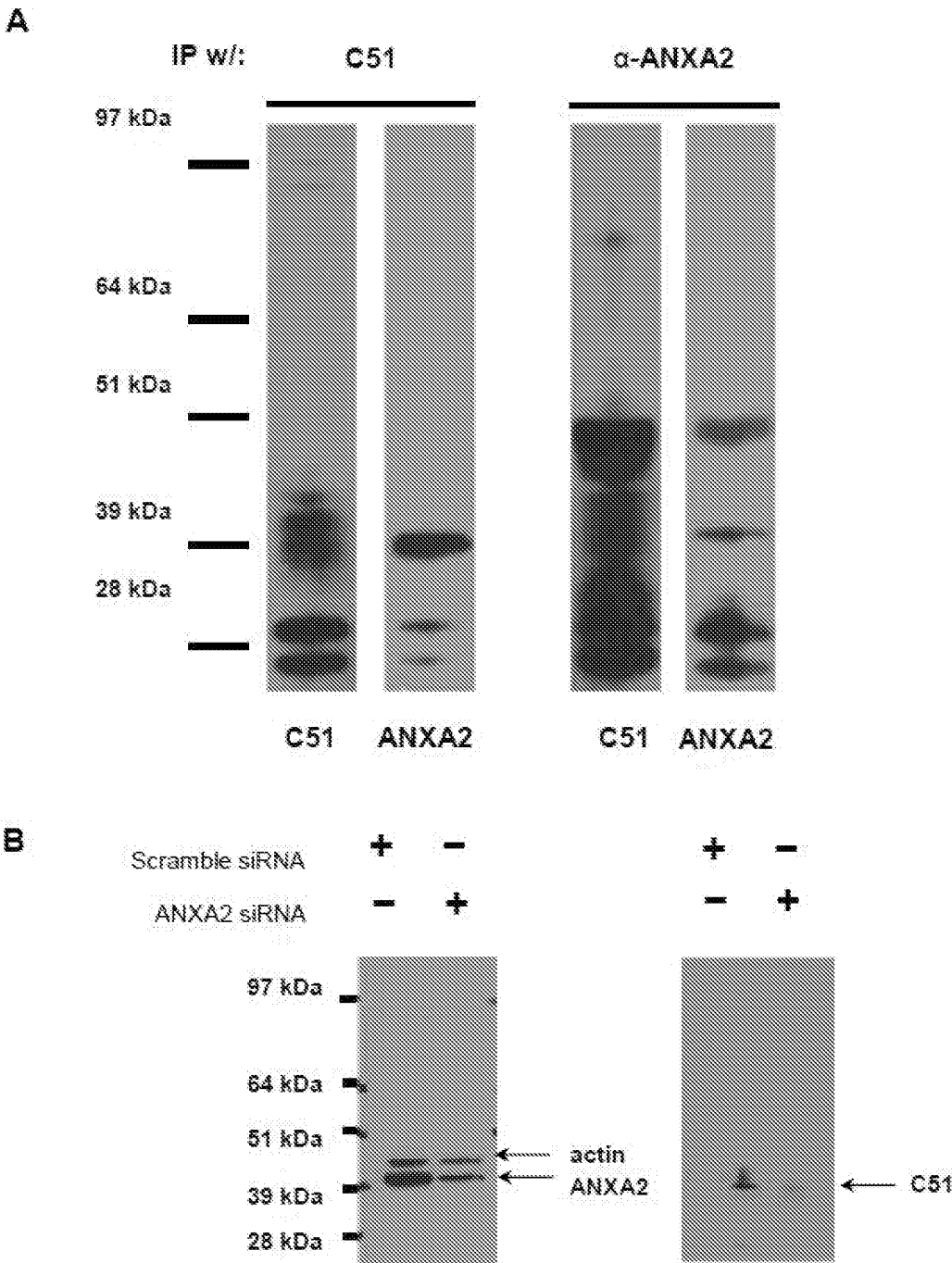
Legend

4	>80% binding
3	60%-80% binding
2	40%-60% binding
1	10%-40% binding
0	<10% binding

B

Ovarian			mAb clone	Breast			mAb clone
EMT Category [†]	Cell line	C51*		EMT Category [†]	Cell line	C51*	
E	CaOV3	+++		E	BT474	++++	
E	OVCAR3	++++		E	CAMA1	++++	
E	OVCAR8	++++		E	HCC2218	++++	
E	OV98	++		E	MDA453	++++	
E	IGROV1	+++		E	MCF7	++++	
IE	OV17R	-		E	SKBR3	++++	
IE	OVCA432	+++		E	T47D	++++	
IE	OVCA433	++		IE	BT20	++++	
IM	CH1	-		IE	HCC1937	+++	
IM	HEY	-		IM	HCC1954	++++	
IM	HEYC2	-		M	MCF10A	++	
IM	SKOV3	+++		M	MDA-MB-231	+	
IM	SKOV3(D10)	+		M	BT549	-	
M	A2780	-		M	HS578T	++++	
M	COLO720E	-		U	184B5	++++	
M	HEYA8	-		U	HCC1395	-	
M	OVCAR10	-					
M	TOV112	-					
U	IOSE523	-					

Fig. 3



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Fig. 4

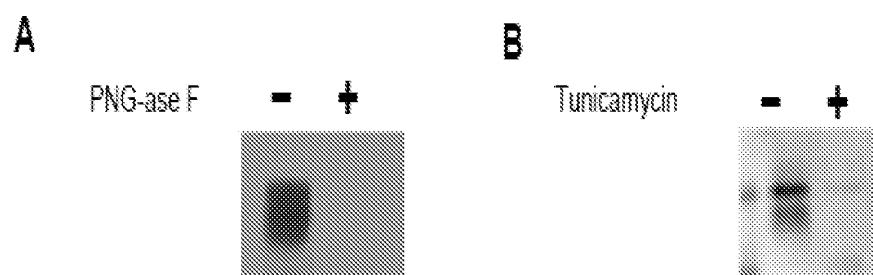


Fig. 5

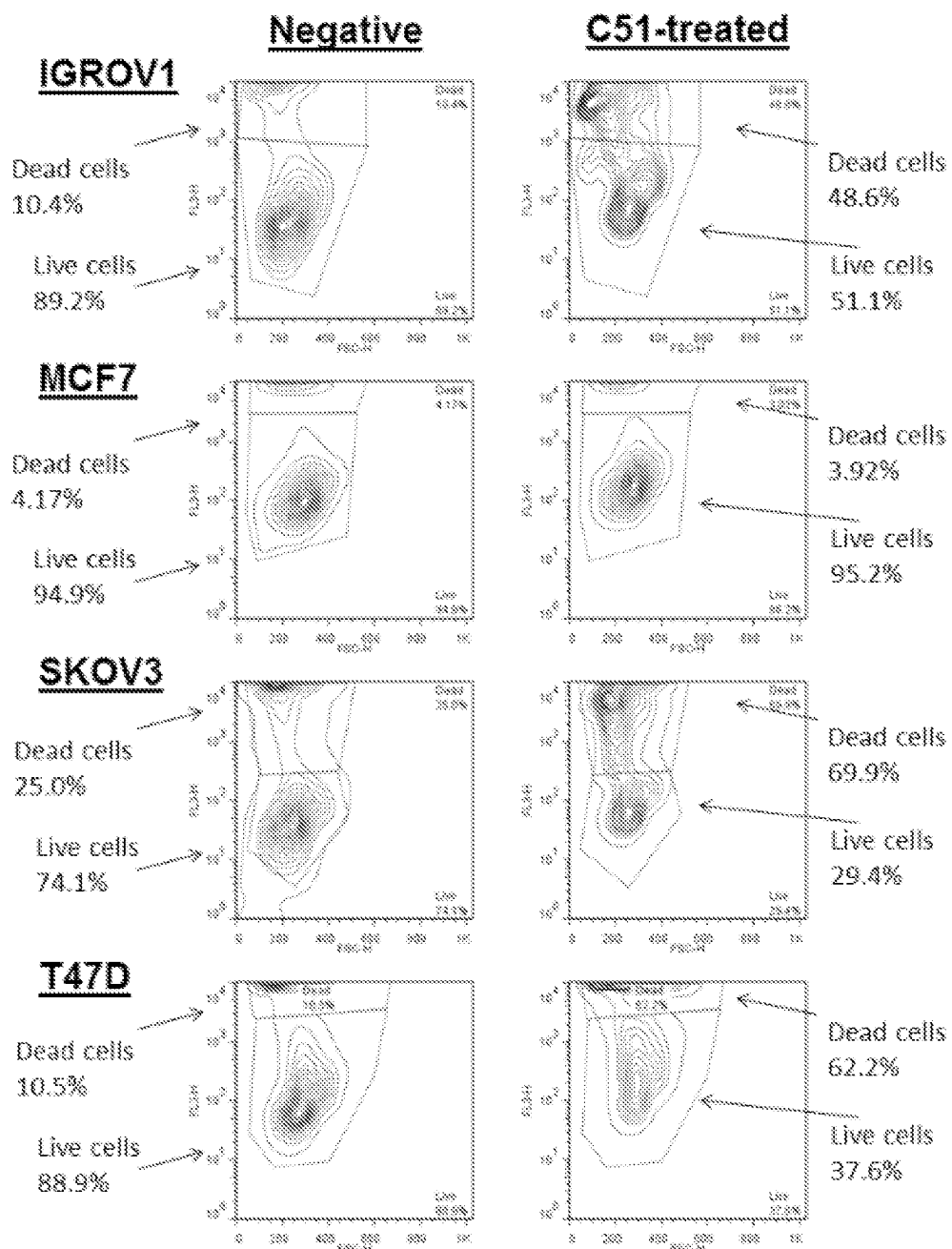
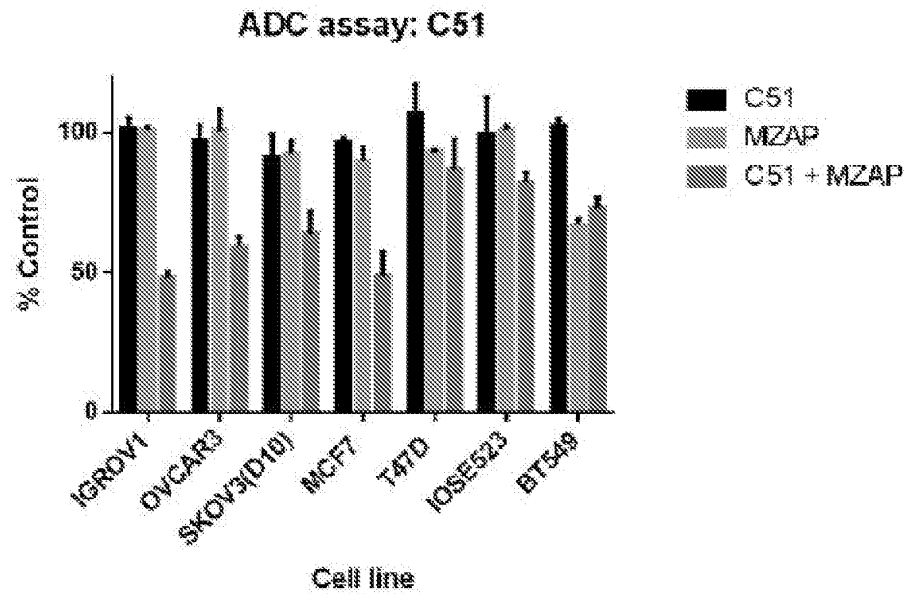


Fig. 6



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FIG. 7

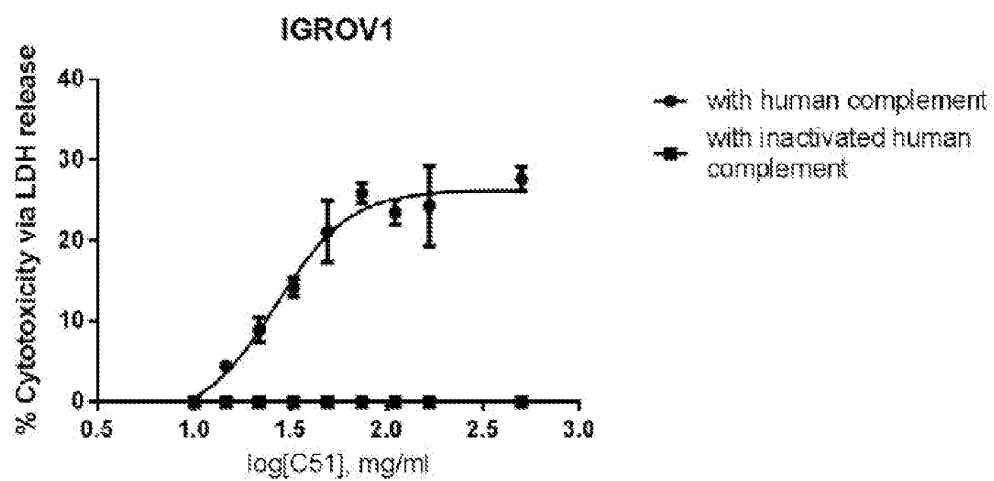
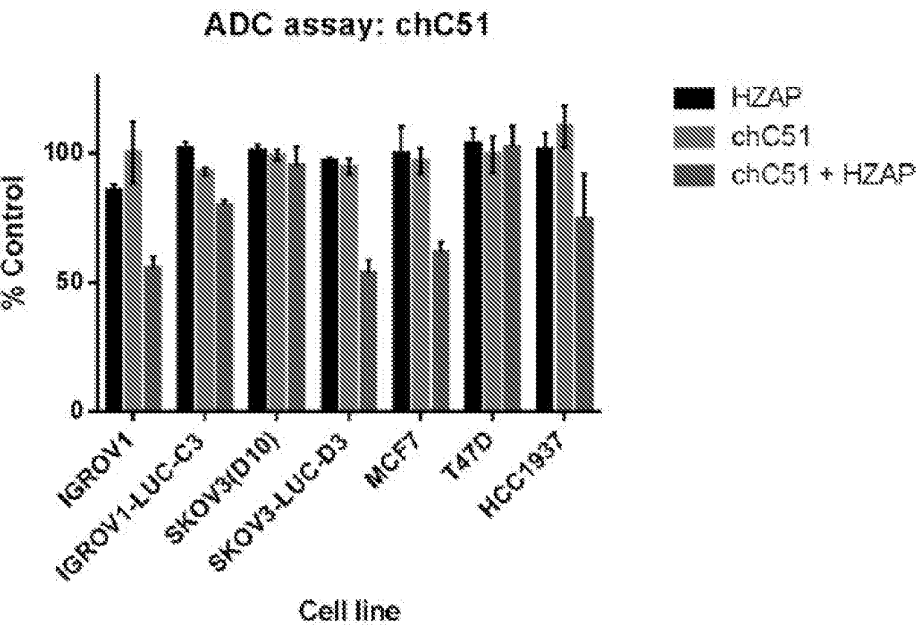
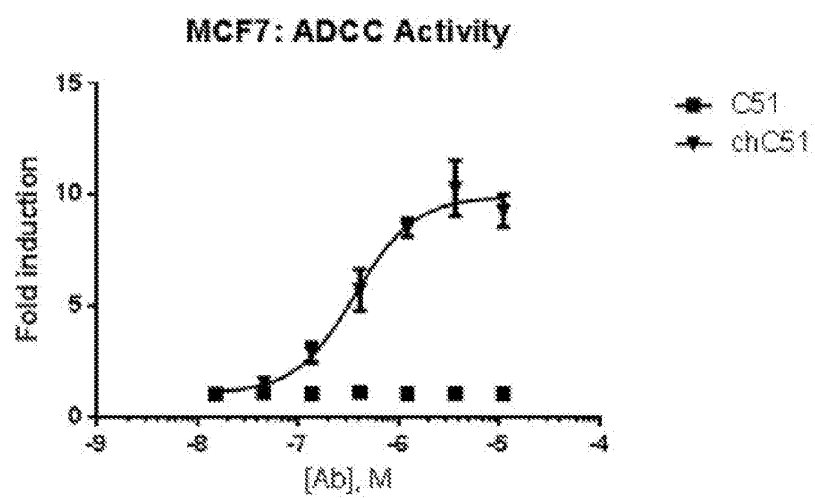


FIG. 8



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Fig. 9



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Fig. 10

Fig. 10A

Gene Sequence 2448 (Heavy Chain) (SEQ ID NO.:3)

GTACAGCTGCAGGAGTCAGGACCTGACCTGGTGAAACCTTCTCGGTCACCTTTCAC
 TCACCTGCACTGTCACTGGCTACTCCATCACCAGTGGTTATAGCTGGCACTGG
 ATCCGGCAGTTTCCAGGAAACAACTGGAATGGATGGGCTACATACACTACAGT
GGTAGCACTAAGTACAACCCATCTCTCAAAAGTCGAATCTCTATCACTCGAGA
 CACATCCAAGAACCAGTTCTTCTGCAGTTGAATTCTGTGACTACTGAGGACGCA
 GCCACATATTACTGTGCAAGGGGGAGTAACGCGATTGACTACTGGGGCCA
 AGGCACCACTCTCACAGTCTCCTCA

Gene Sequence 2448 (Light Chain) (SEQ ID NO.:4)

GACATTGAGCTCACCCAGTCTCCATCCTCCCTAGCTGTGTCAGTTGGAGAGAAGG
 TTAATATGAGCTGCAAGTCCAGTCAGAGCCTTTTATATAGTAACGATCAAAAG
AACTACTTGGCCTGGTACCAACAGAAACCAGGGCAGTCTCCTAAACTGCTGATT
 TACTGGGCATCTATTAGGGAATCTGGGGTCCCTGATCGCTTACAGGCAGTGGA
 TCTGGGACAGATTTCACTCTCACCATCAGCAGTGTGAAGGCTGAAGACCTGGCAG
 TTTATTACTGTCAAGCAATATTATATCTATCCTCTCACGTTTCGGTGCTGGGACCA
 AGCTGGAAATAAAACGG

Fig. 10B

Amino Acid Sequence 2448 (Heavy Chain) (SEQ ID NO.:1)

VQLQESGPD LVKPSRSLTCTVT GYSITSGYSWHWIRQFPGNKLEWMGYIHYSGST
KYNPSLKSRISITRDTSKNQFFLQLNSVTTEDAATYYCARG GSNYGFDYWGQGTTLTV
 SS

Amino Acid Sequence 2448 (Light Chain) (SEQ ID NO.:2)

DIELTQSPSSLAVSVGEKVTMSC KSSQSLLYSNDQKNYLAWYQQKPGQSPKLLIYW
ASIRESGVPDRFTGSGSGTDFLTISSVKAEDLAVYYC QOYYIYPLTFGAGTKLEIKR

Fig. 10C



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Fig. 11

A

Breast Cancer Cell Lines

2448	BT474	BT20	CAMA1	HCC1937	HCC1954	HCC2218	H557ST	MCF7	MDAMB435	SKBR3	T47D
	4	4	2	4	4	4	4	4	4	4	4

Colorectal Cancer Cell lines

2448	COLO205	HCC2998	HCT15	HCT116	HT29	KM12	LS174T	SW620
	3	0	0	0	4	4	1	4

Kidney Cancer Cell lines

2448	786O	A498	ACHN	CAR1	UO31	RFX393	SN12C	TK10
	4	4	4	3	4	4	2	4

Liver Cancer Cell lines

2448	HEP3B	HEPG2	HUH7	PLC
	4	1	2	3

Normal Cell Lines

2448	IMR90	IOSE523	HEK293	HFF	INTER-HRE3
	1	0	0	0	1

Ovarian Cancer Cell Lines

2448	CAOV3	CH1	IGROV1	OV17R	OV96	OVCA432	OVCAR3	OVCAR8	OVCA433	PEA1	SKOV3
	3	1	4	1	3	4	2	1	3	4	3

Legend

4	>80% binding
3	60%-80% binding
2	40%-60% binding
1	10%-40% binding
0	<10% binding

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Fig. 11

B

Ovarian			Breast		
EMT Category [†]	Cell line	mAb clone 2448 [†]	EMT Category [†]	Cell line	mAb clone 2448 [†]
E	CaOV3	+++	E	BT474	++++
E	OVCAR3	+++	E	CAMA1	++++
E	OVCAR8	++++	E	HCC2218	++++
E	OV90	+++	E	MDA453	++++
E	IGROV1	++++	E	MCF7	++++
IE	OV17R	+	E	SKBR3	++++
IE	OVCA432	++++	E	T47D	++++
IE	OVCA433	+++	IE	BT20	++++
IM	CH1	+	IE	HCC1937	++++
IM	HEY	-	IM	HCC1954	++++
IM	HEYC2	-	M	MCF10A	++
IM	SKOV3	+++	M	MDA-MB-231	-
IM	SKOV3(D10)	+	M	BT549	-
M	A2780	-	M	HS578T	++
M	COLO720E	-	U	184B5	++++
M	HEYA8	-	U	HCC1395	-
M	OVCAR10	-			
M	TOV112	-			
U	IOSE523	-			

Fig. 11

C

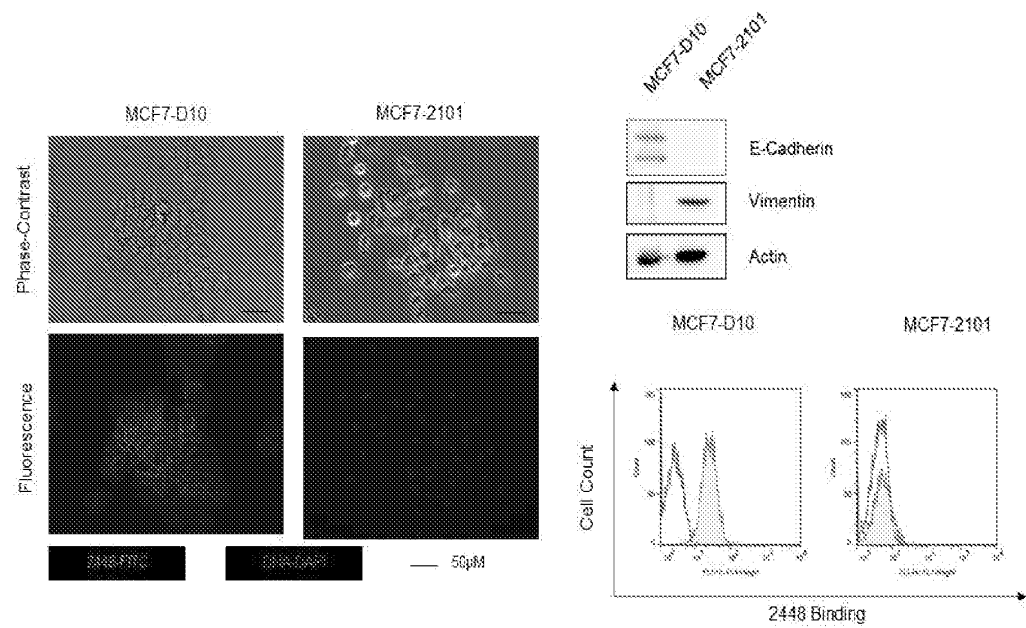
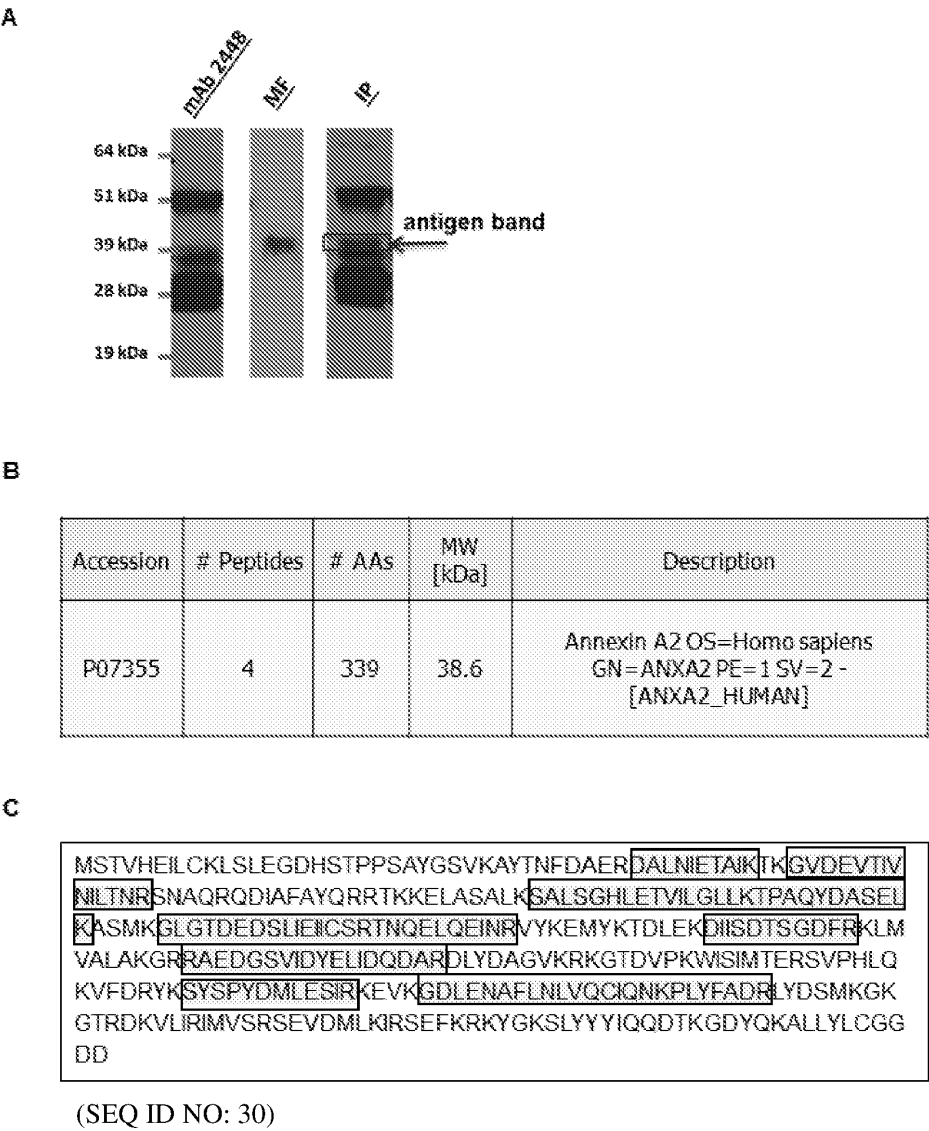
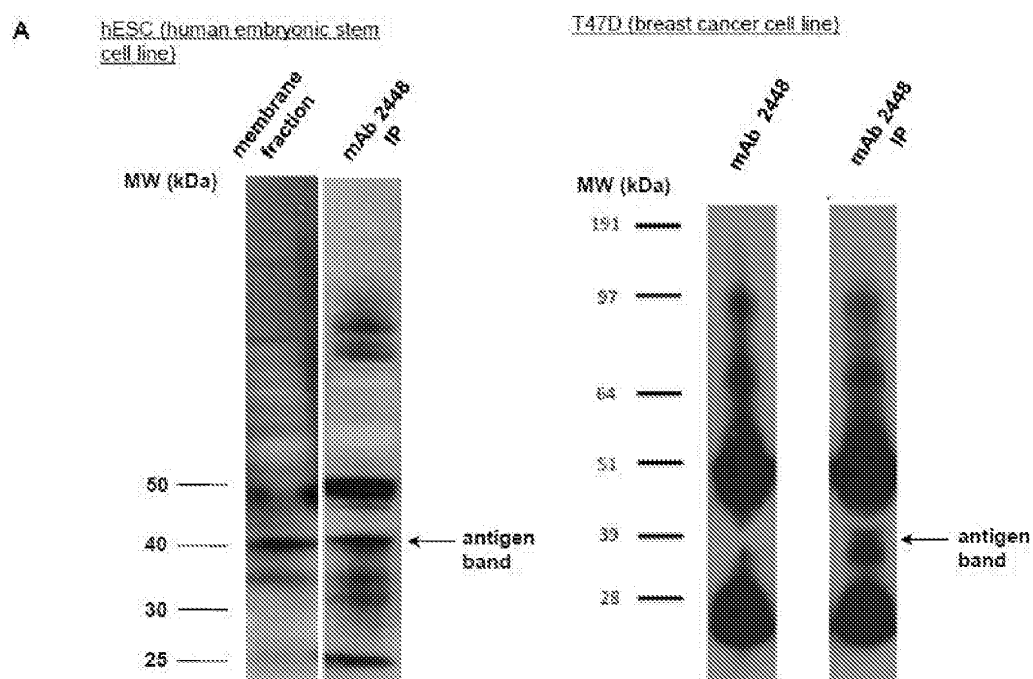


Fig. 12



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Fig. 13

**B hESC mass spectrometry results**

MS/MS sample name	Protein name	Protein Mw(Da)	Protein id Prob.	No. of Unique peptides	% sequence coverage
DataSC-WJ-C2-230610 (F16665)	Annexin A2 OS=Homo sapiens GN=ANXA2	38,568.10	100.00%	11	45.70%
DataSC-WJ-D2-230610 (F16656)	Annexin A2 OS=Homo sapiens GN=ANXA2	38,568.10	100.00%	12	49.90%
DataSC-WJ-E2-230610 (F16658)	Annexin A2 OS=Homo sapiens GN=ANXA2	38,568.10	100.00%	14	54.60%

T47D mass spectrometry results

LCMS sample	Protein Name	% seq coverage	No of Unique Peptides	ProteinMW [kDa]
SC_2448_B_100412	Annexin A2 OS=Homo sapiens GN=ANXA2 PE=1 SV=2	37.46	11	38.6
SC_2448_C_100412	Annexin A2 OS=Homo sapiens GN=ANXA2 PE=1 SV=2	54.57	16	38.6
SC1_2448C_02	Annexin A2 OS=Homo sapiens GN=ANXA2 PE=1 SV=2 - [ANXA2_HUMAN]	31.86	10	38.6

Fig. 14

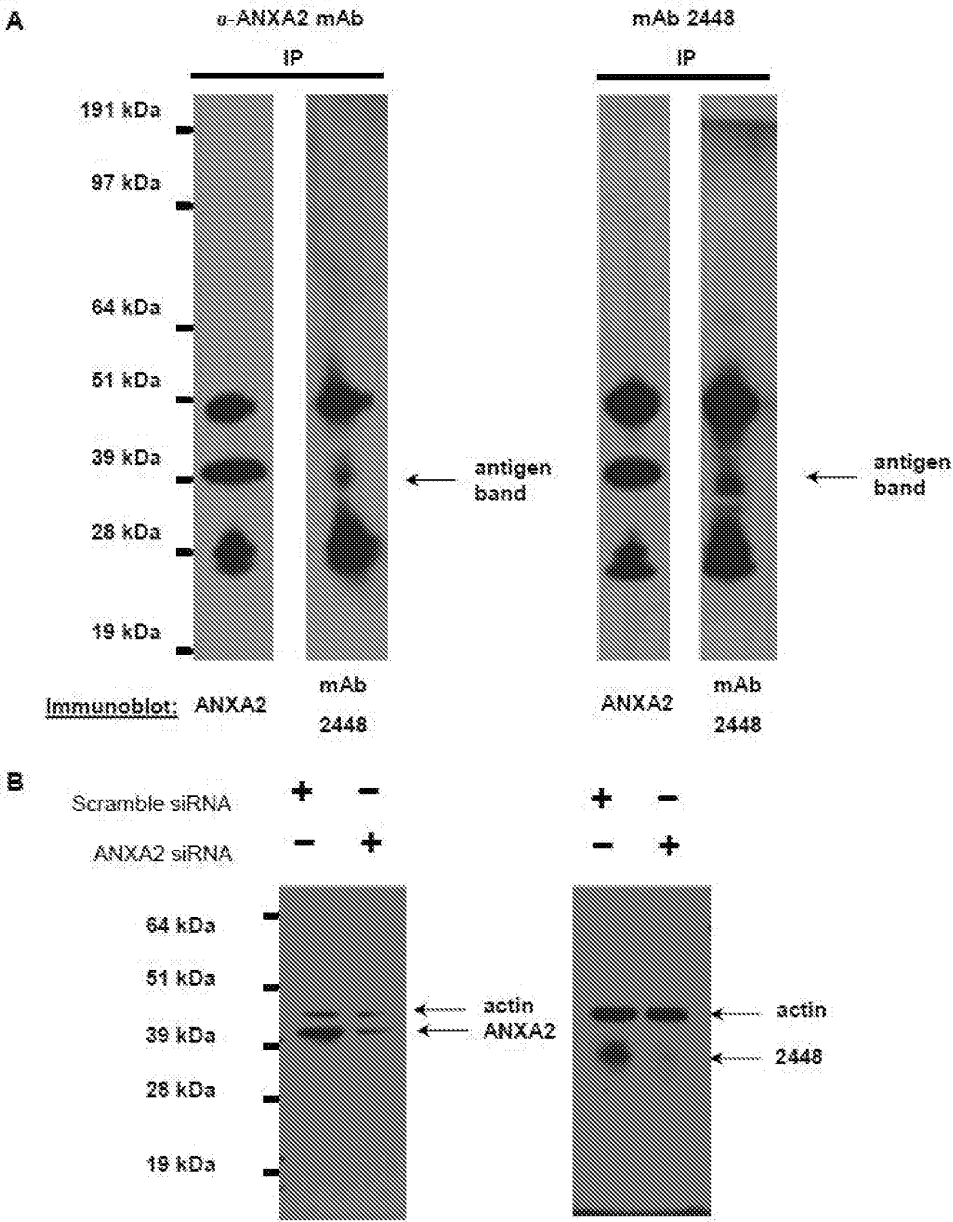
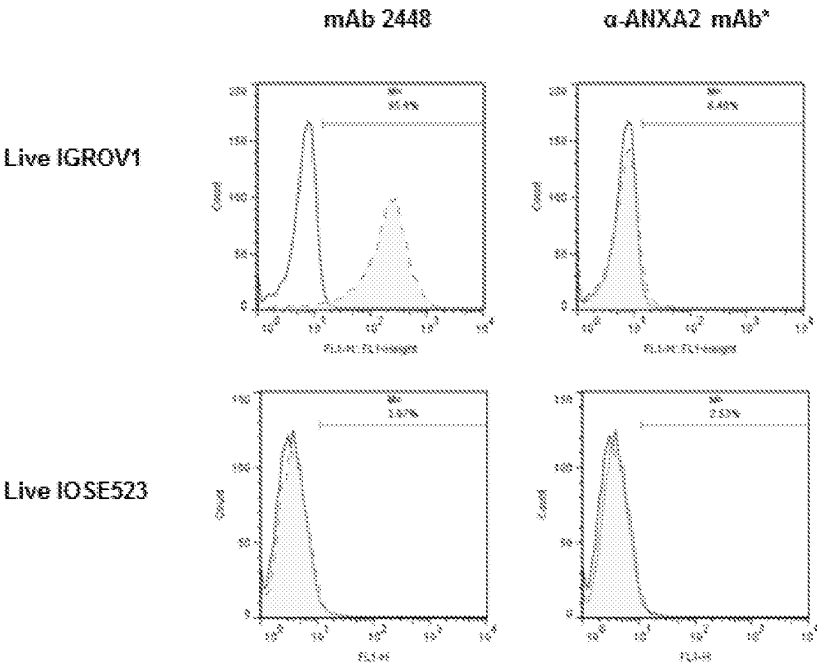


Fig. 15



Designation	Company	Clonality	Species	Isotype	Immunogen
*	BD	Monoclonal	Mouse	IgG1	Human AnnexinIIaa.123-328

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Fig. 16

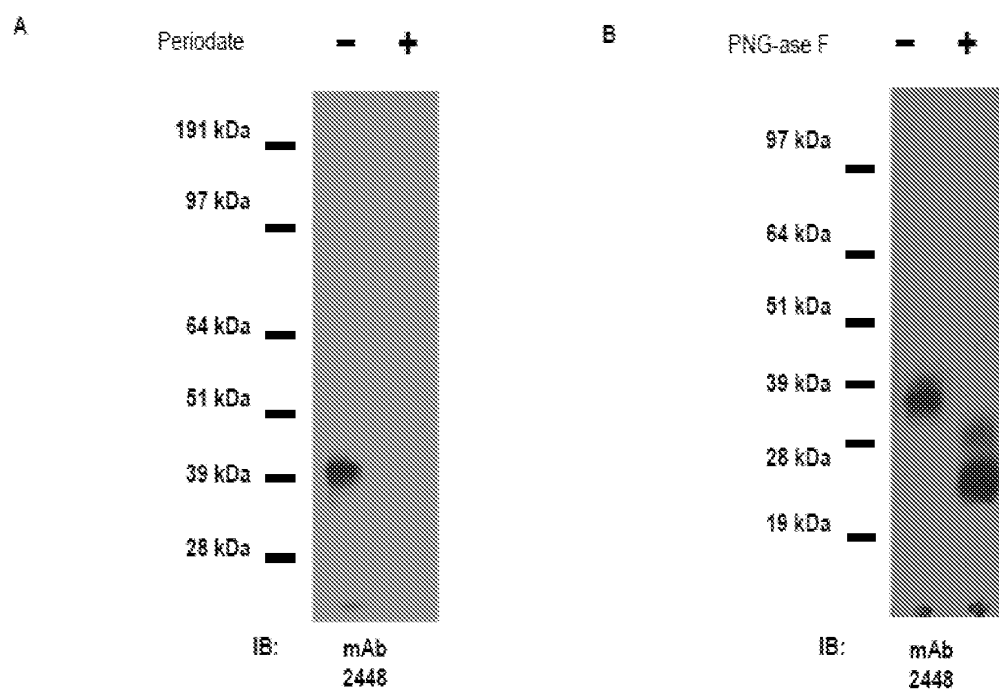


Fig. 17

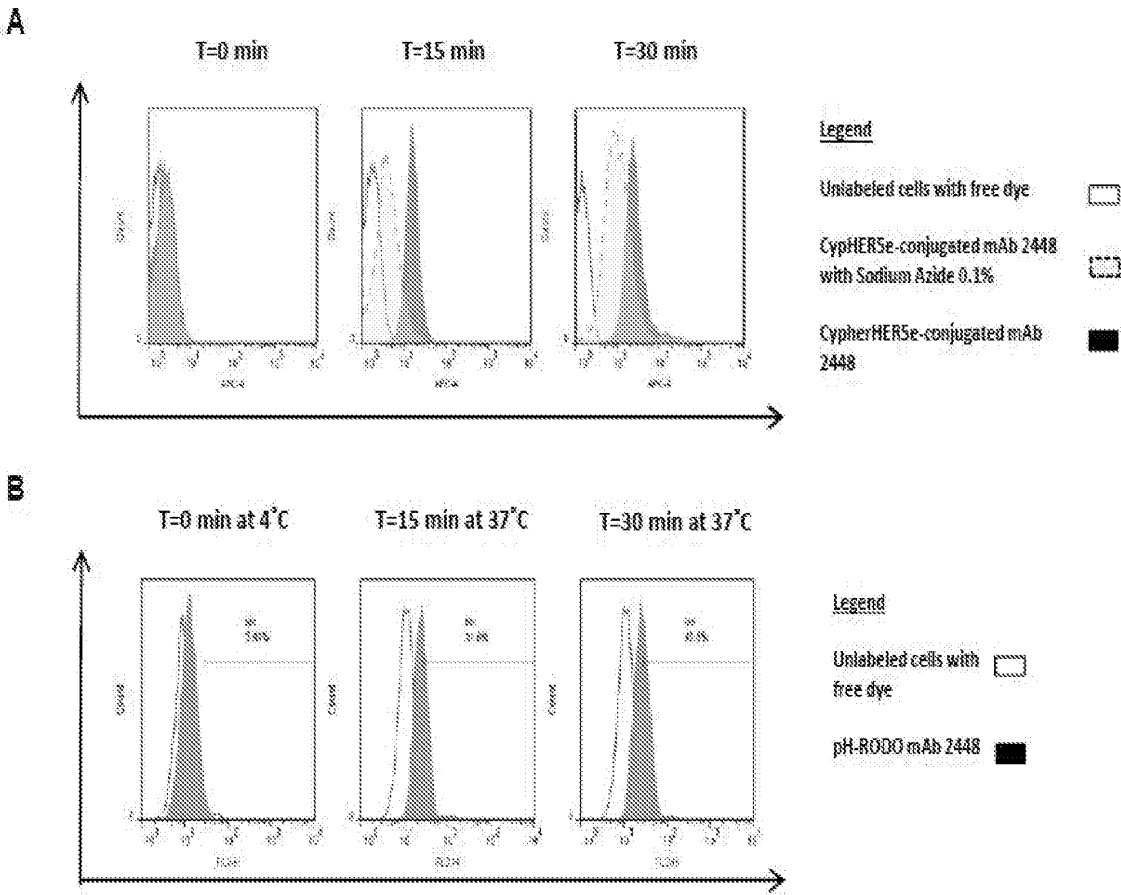


Fig. 18

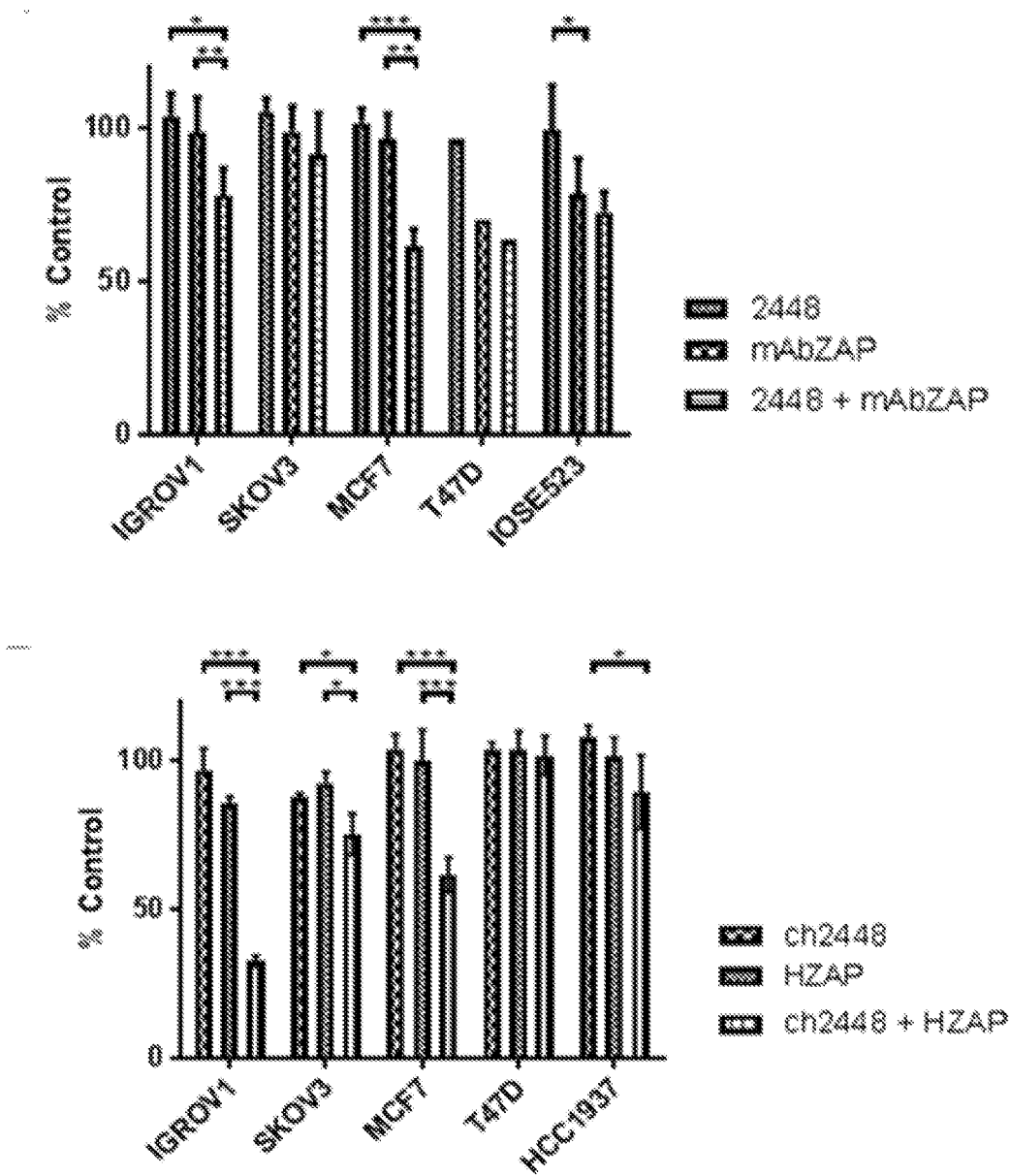


Fig. 19

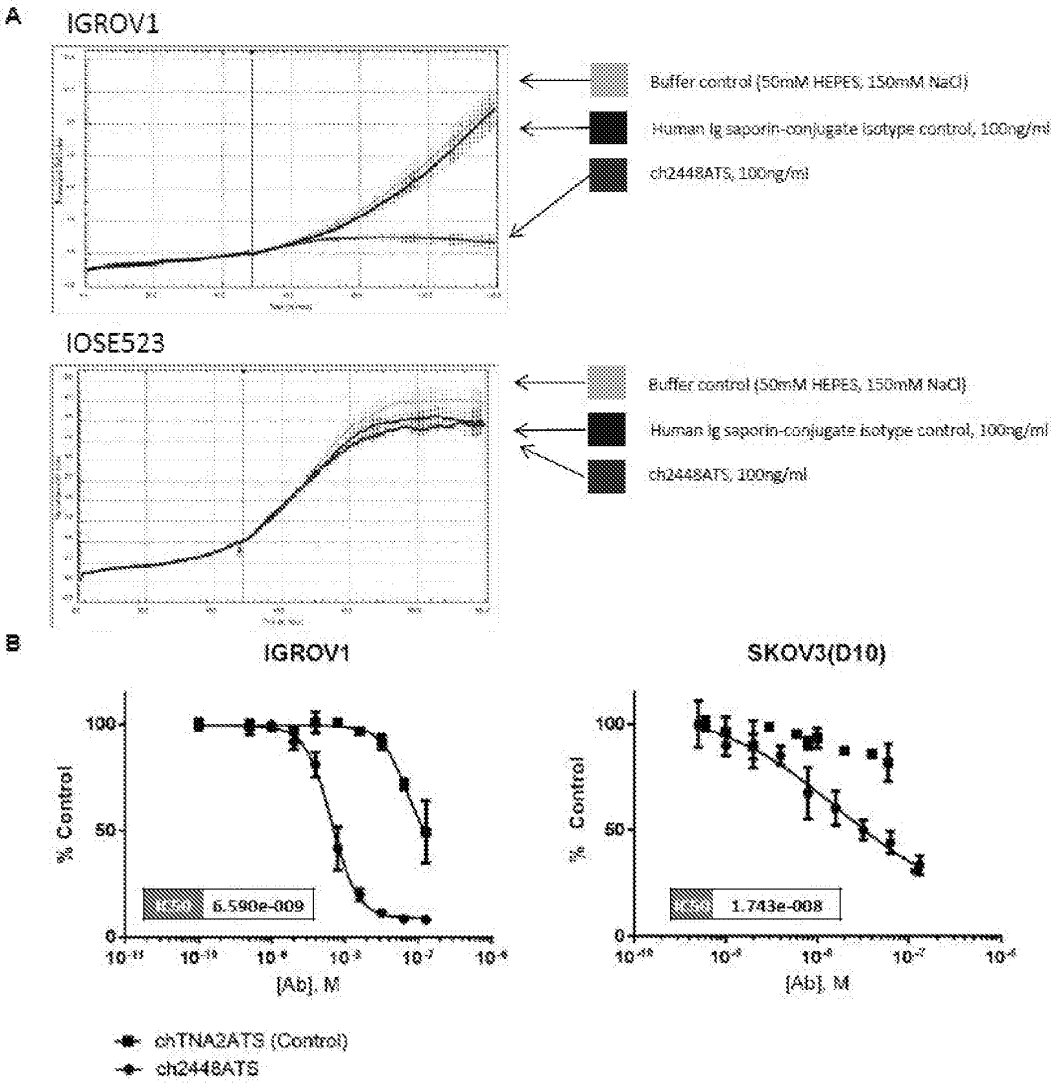
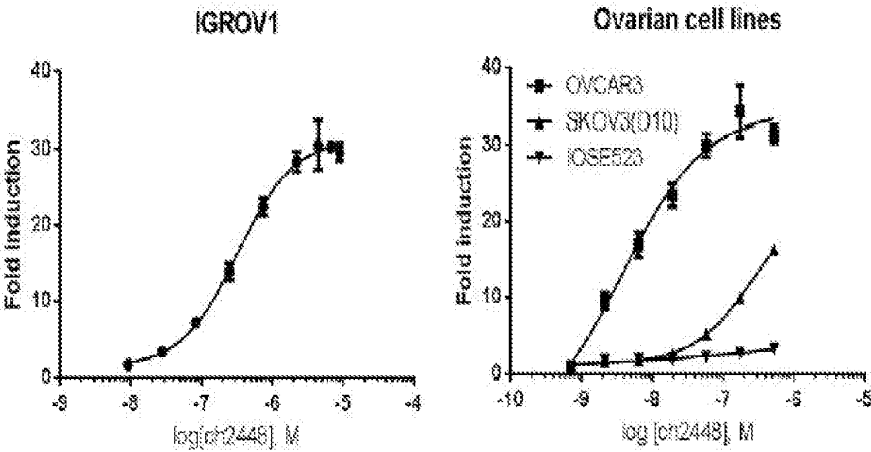


Fig. 20

A



B

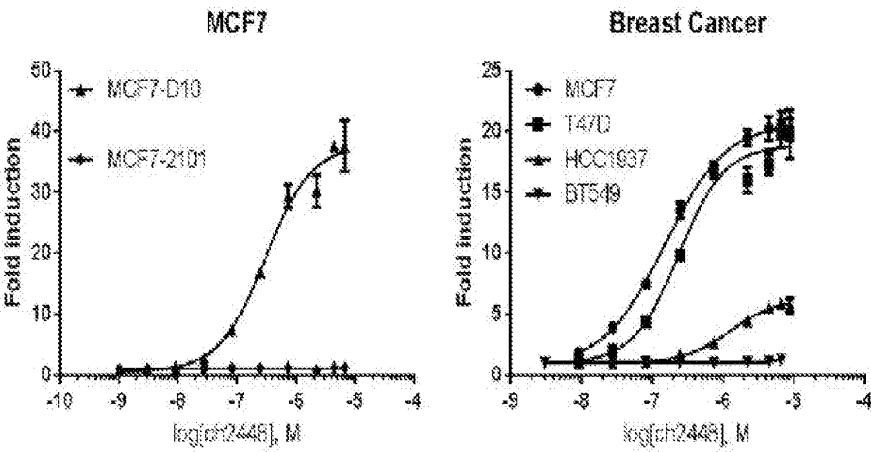
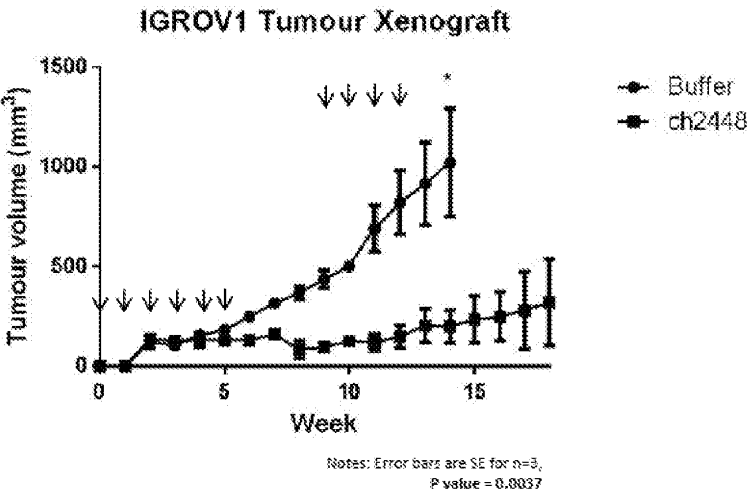


Fig. 21

A



B

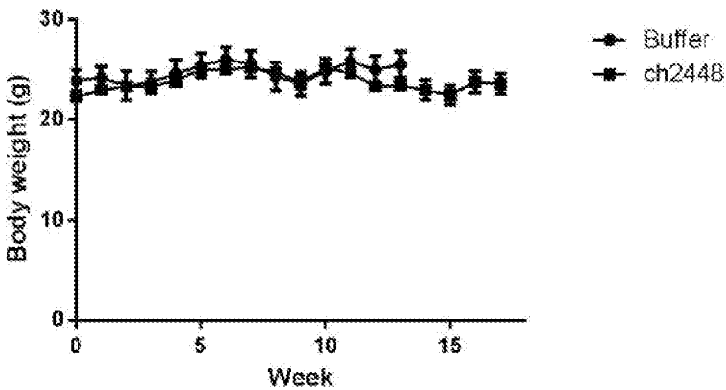


Fig. 22

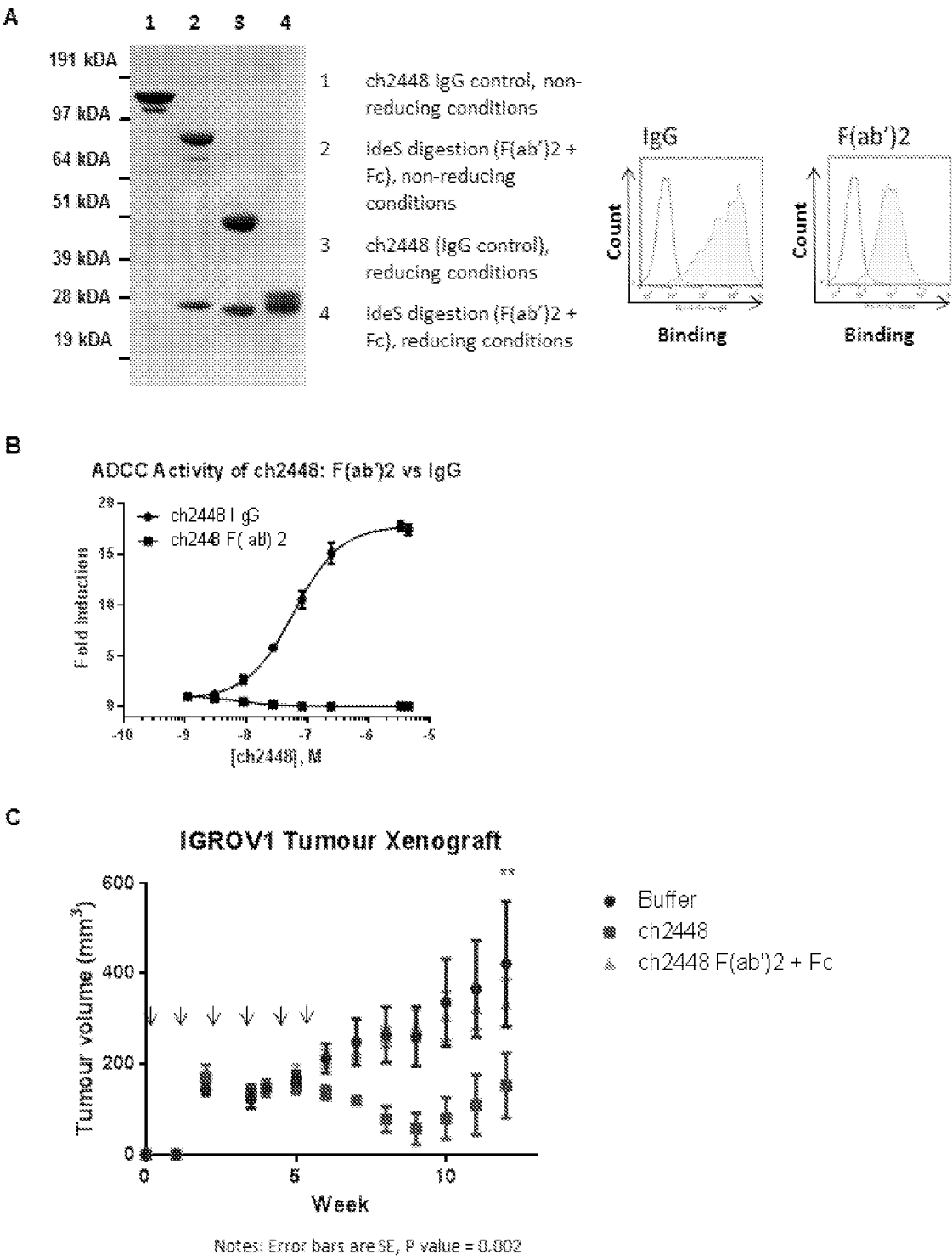


Fig. 23

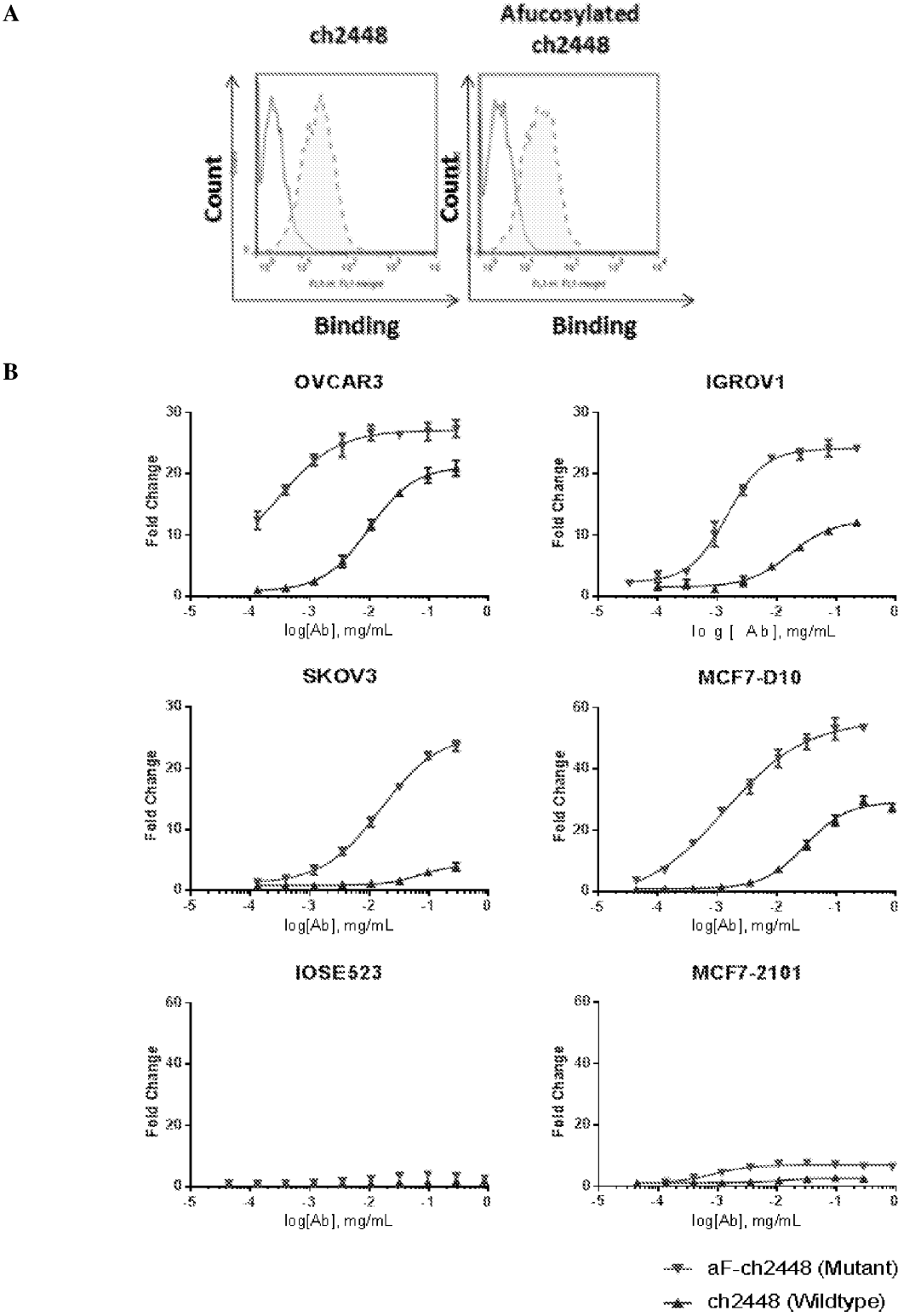


Fig. 24

A

mAb Clone	Isotype	hESC	
		HES-3	EB
mAb2448	IgG1	+++	-

Abbreviations: +, represent binding; +/- , represent partial binding; -, represent no binding; EB, 22 days embryoid bodies.

B

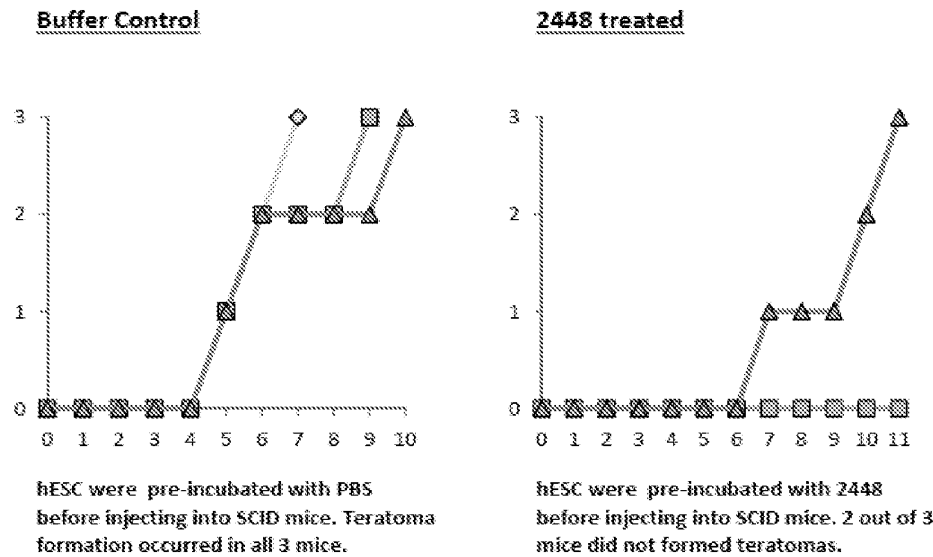


Fig. 25

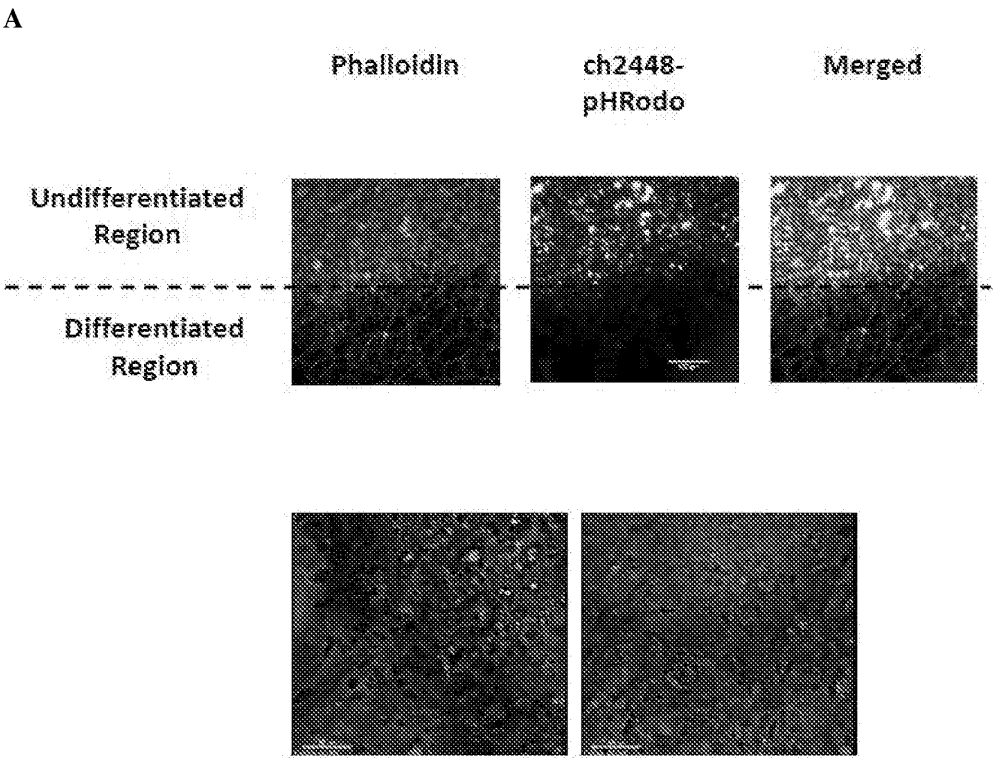


Fig. 25

B

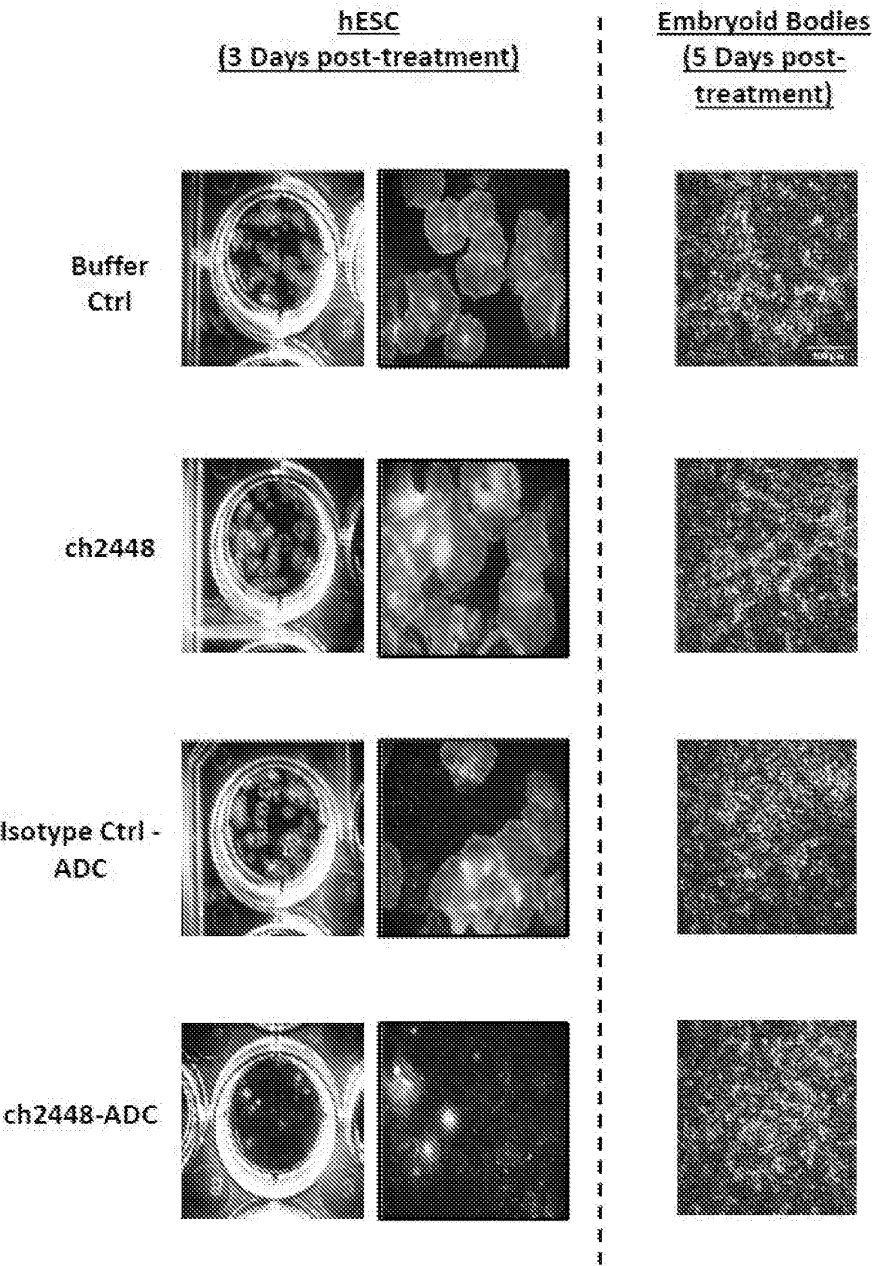


Fig. 25

C

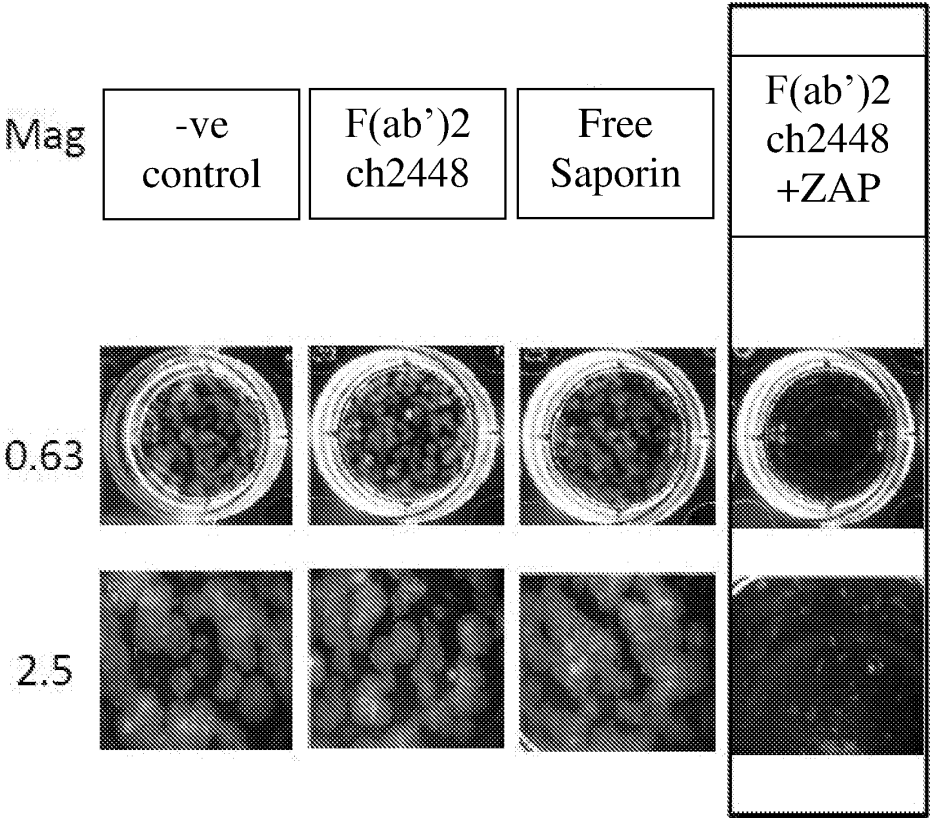


Fig. 26

A

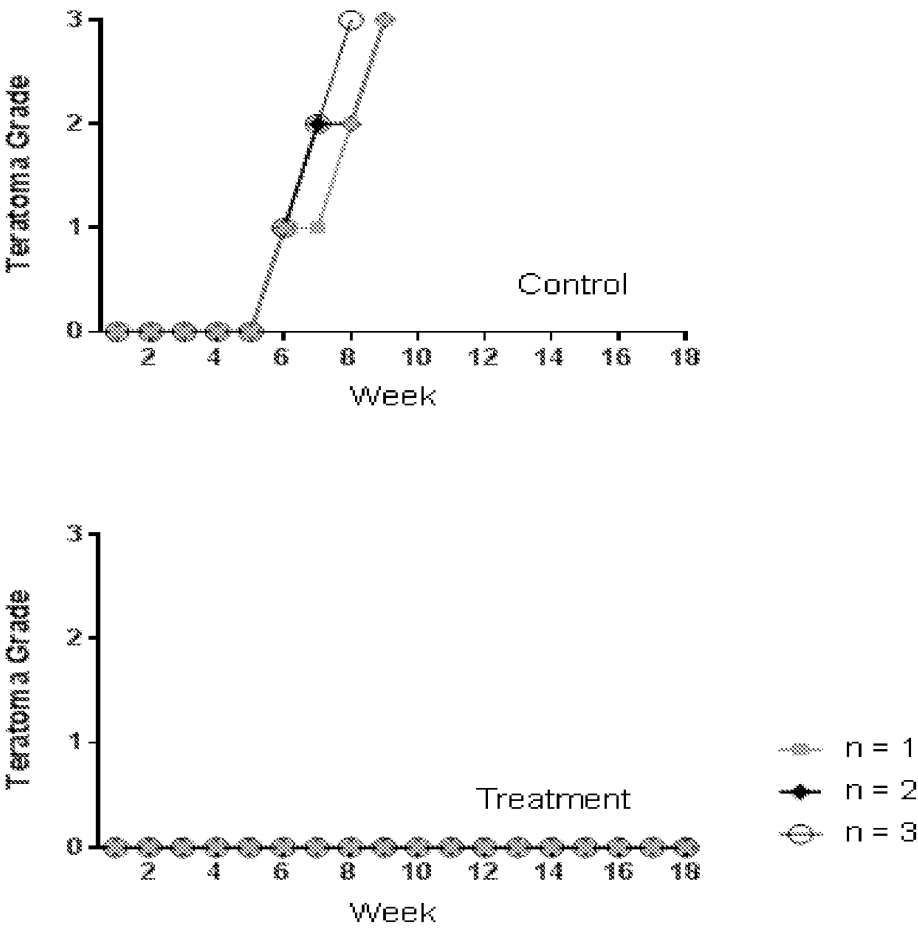
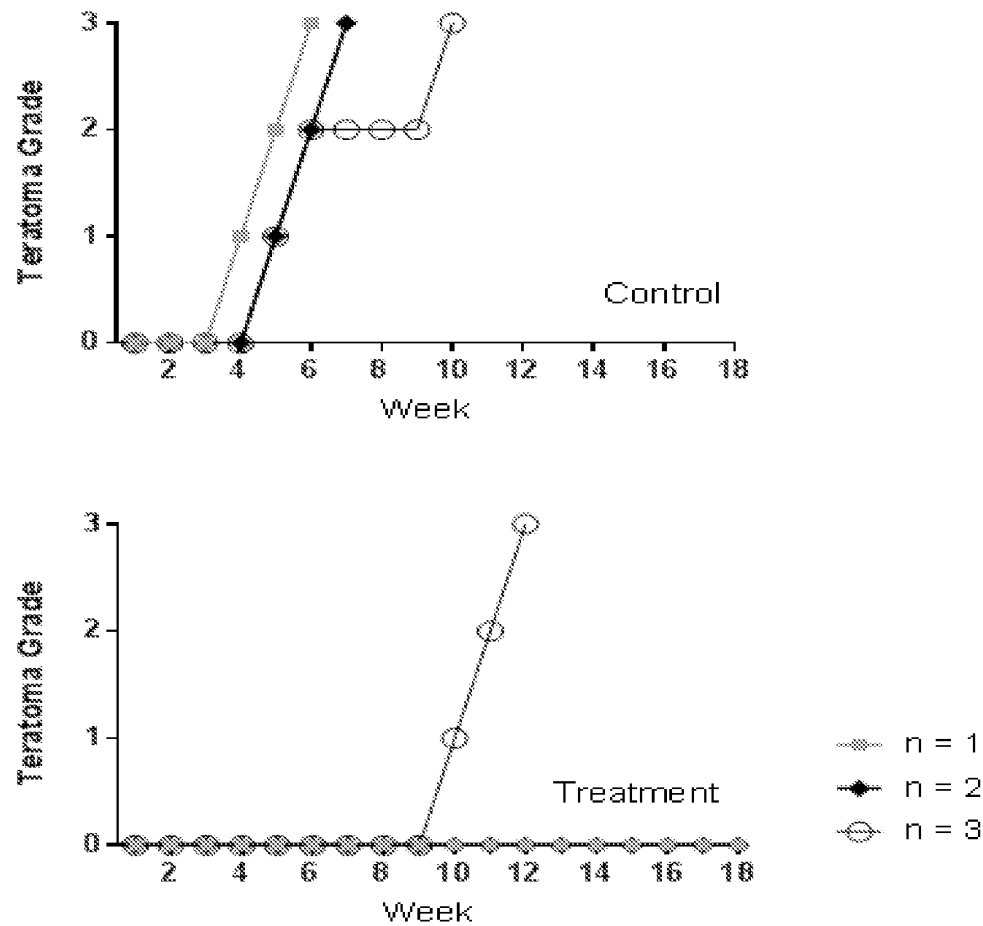


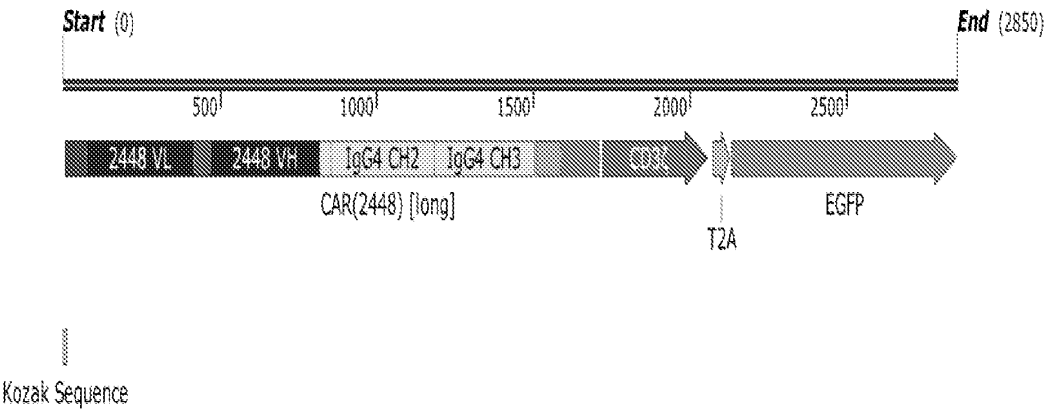
Fig. 26

B



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Fig. 27



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Fig. 28

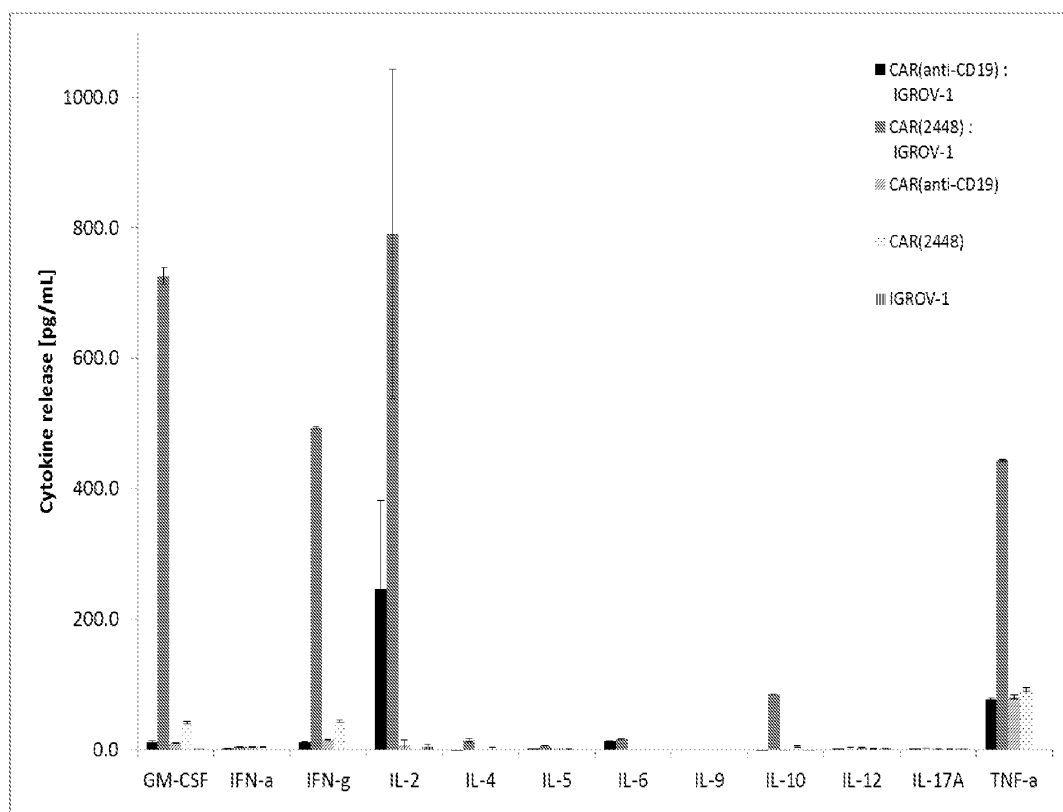


Fig. 29

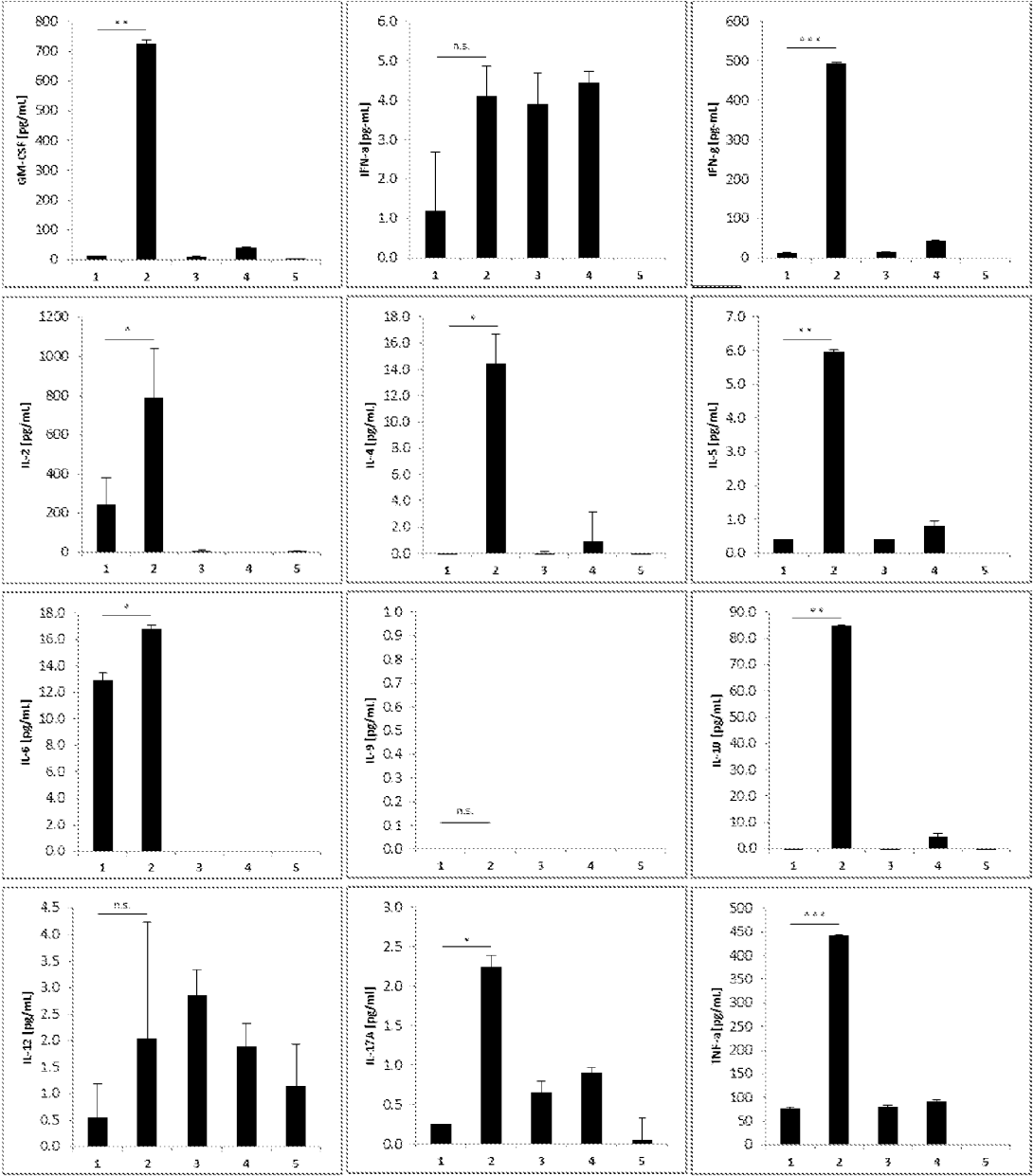
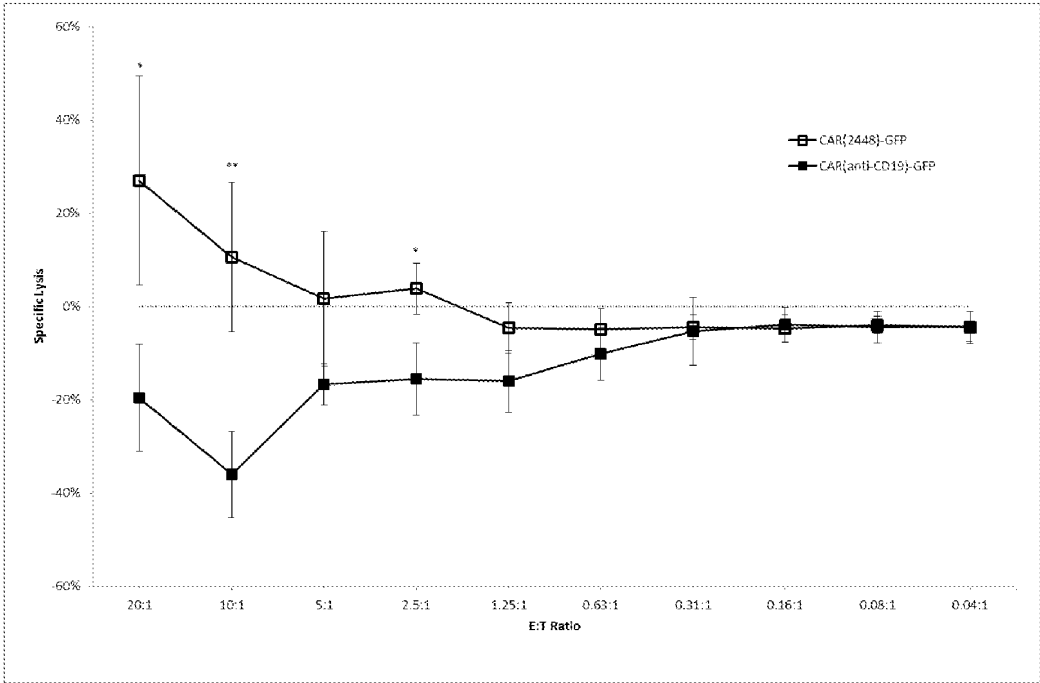


Fig. 30



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Fig. 31

