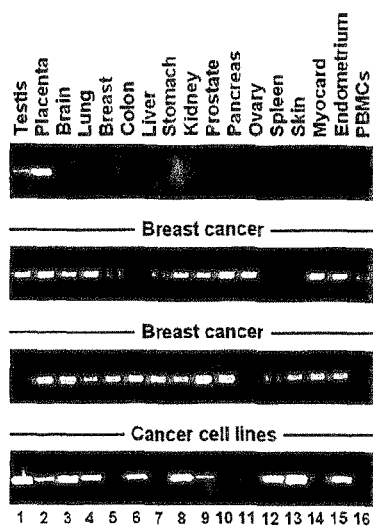


Fig. 1

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A



B

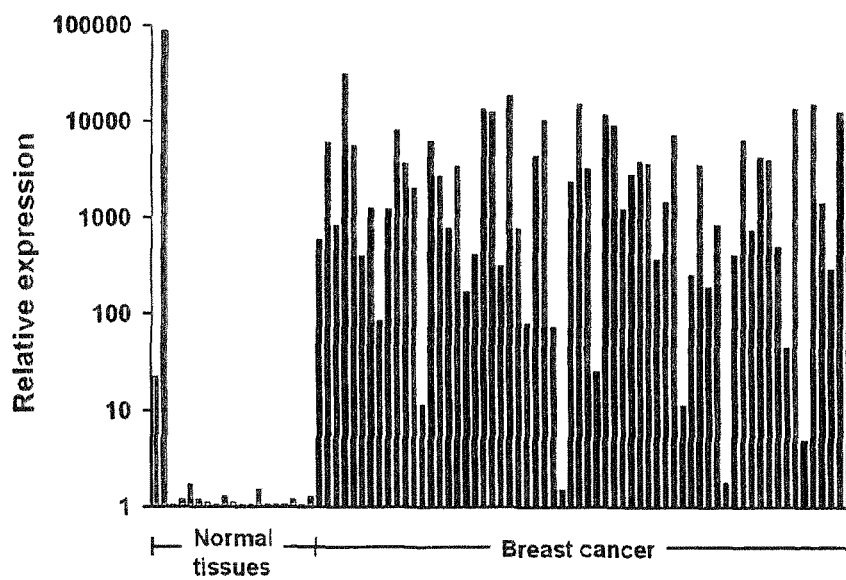


Fig. 1

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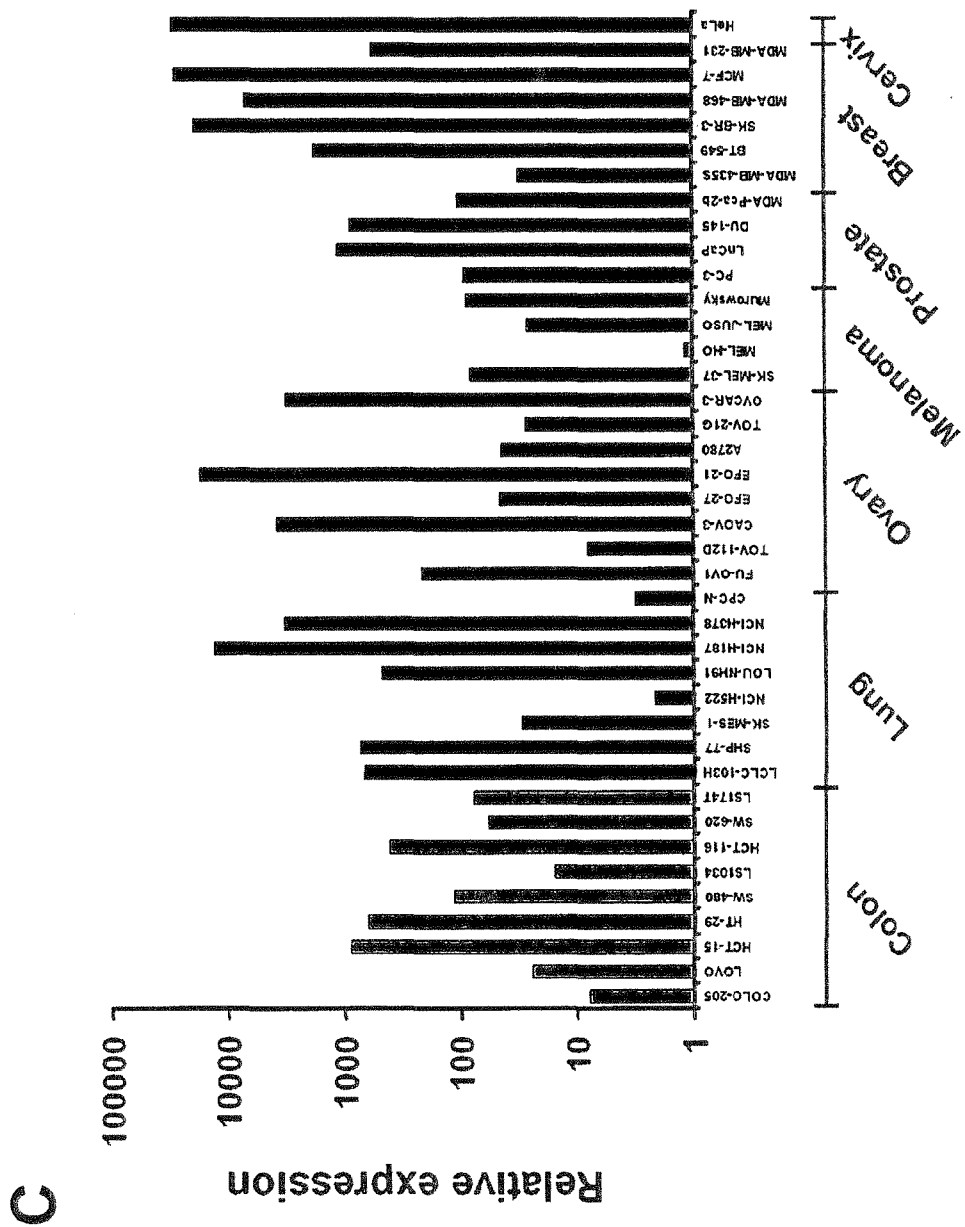
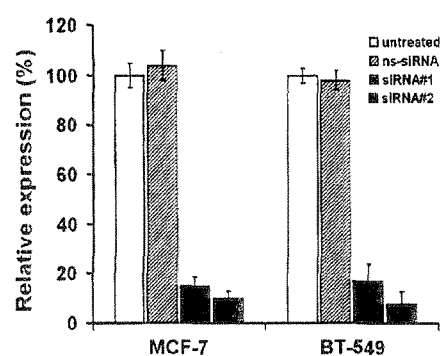


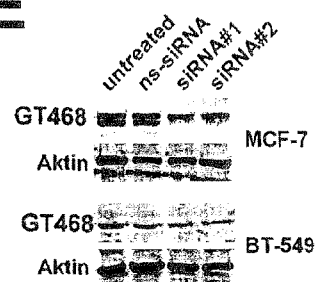
Fig. 1

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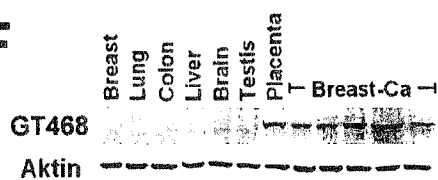
D



E



F



G

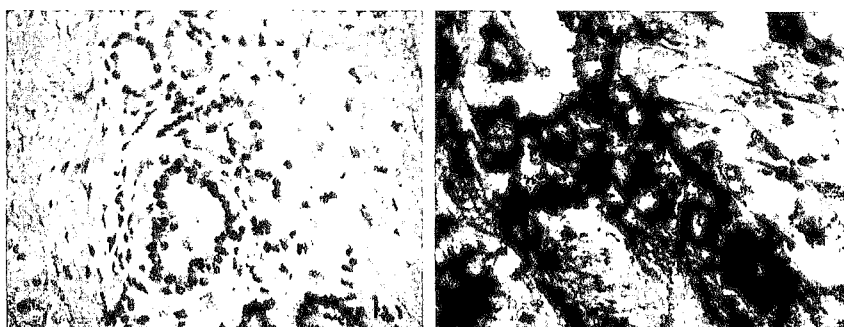
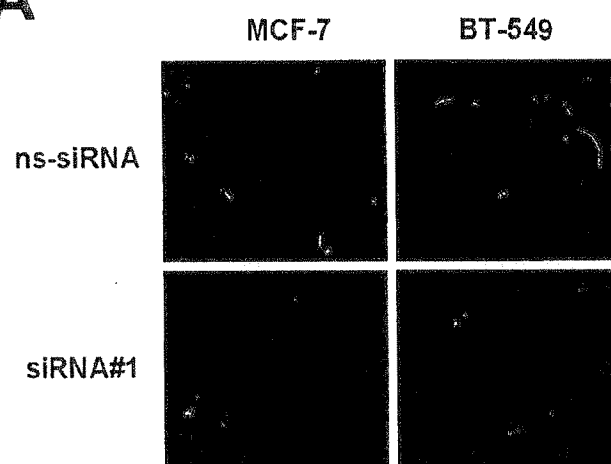


Fig. 2

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A



B

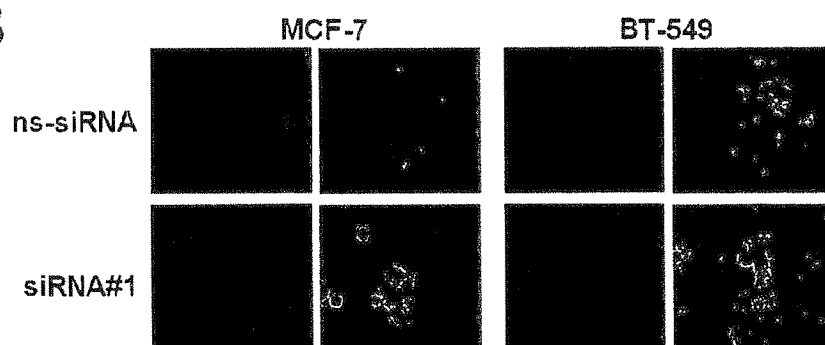


Fig. 3

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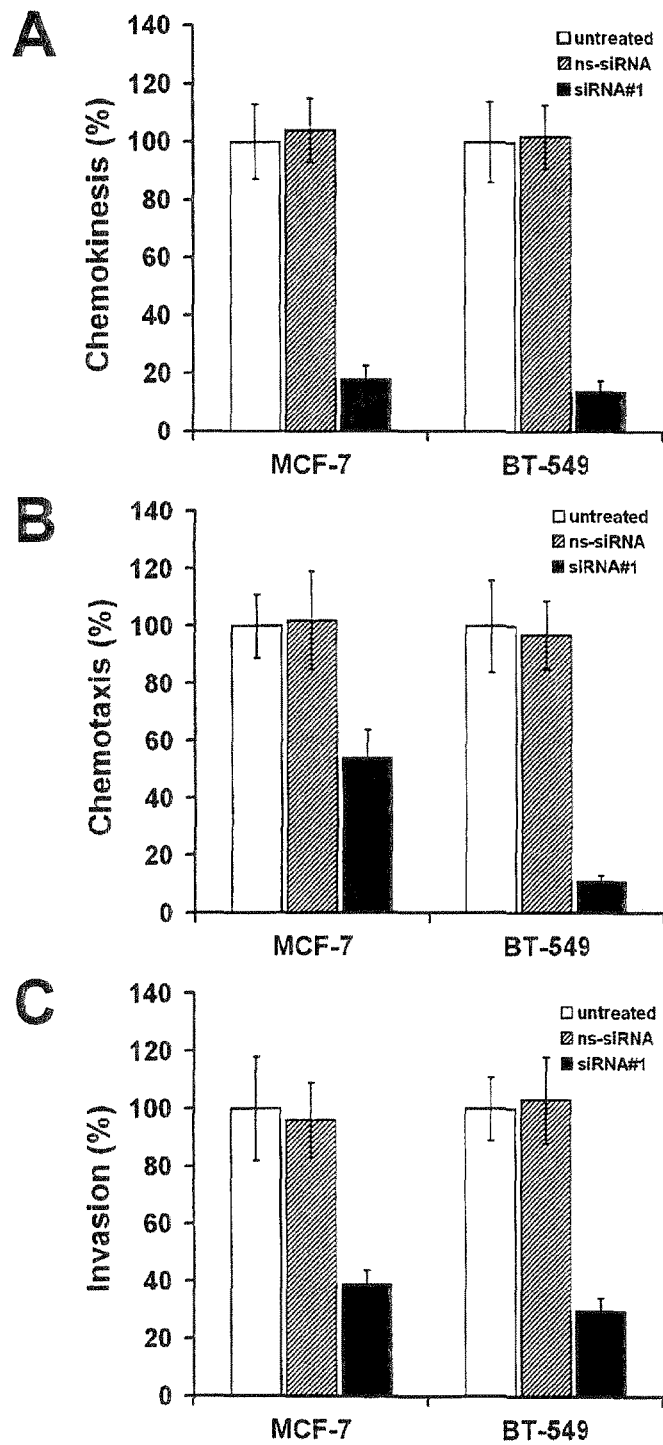


Fig. 4

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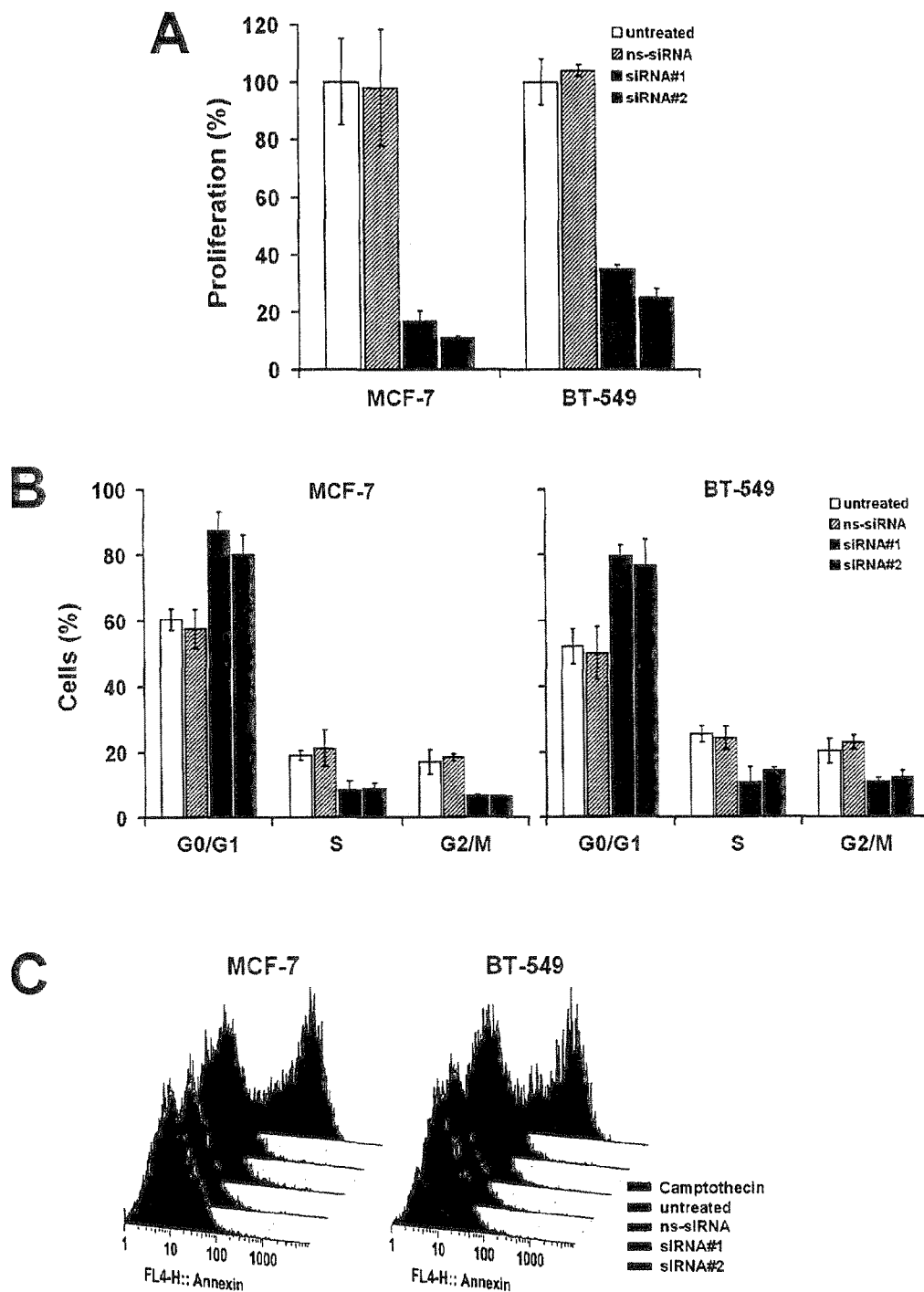


Fig. 5

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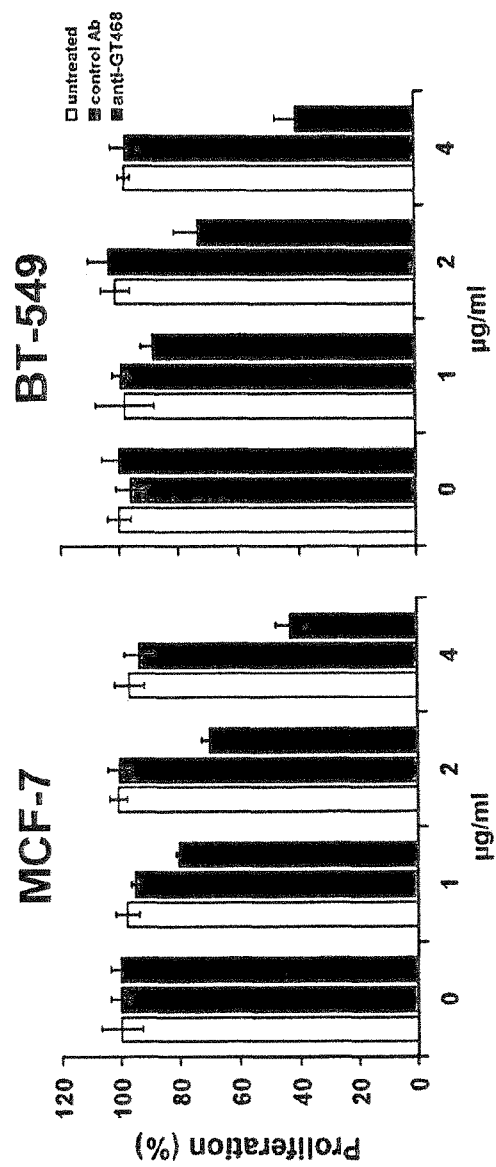


Fig. 6

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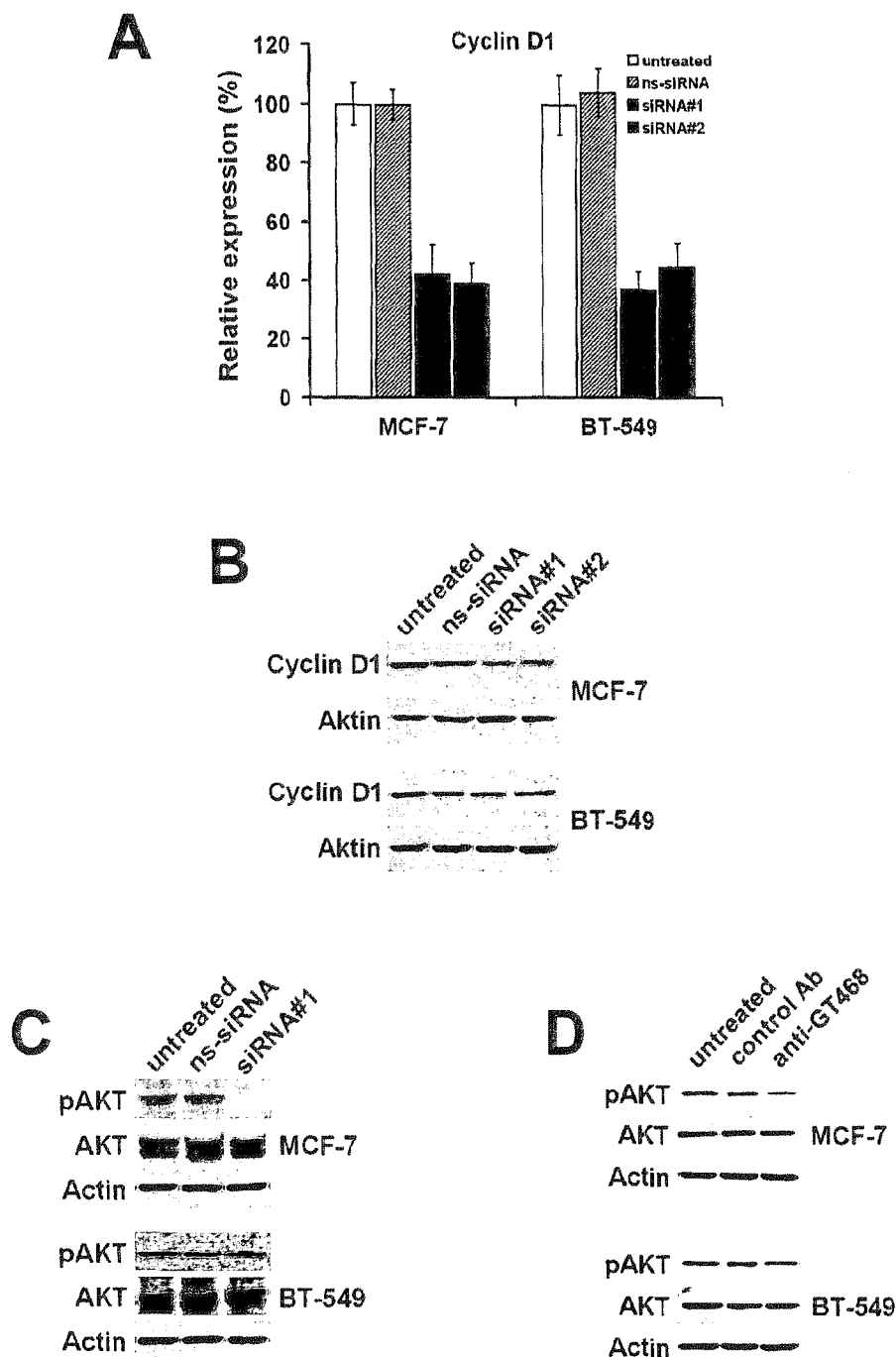


Fig. 7

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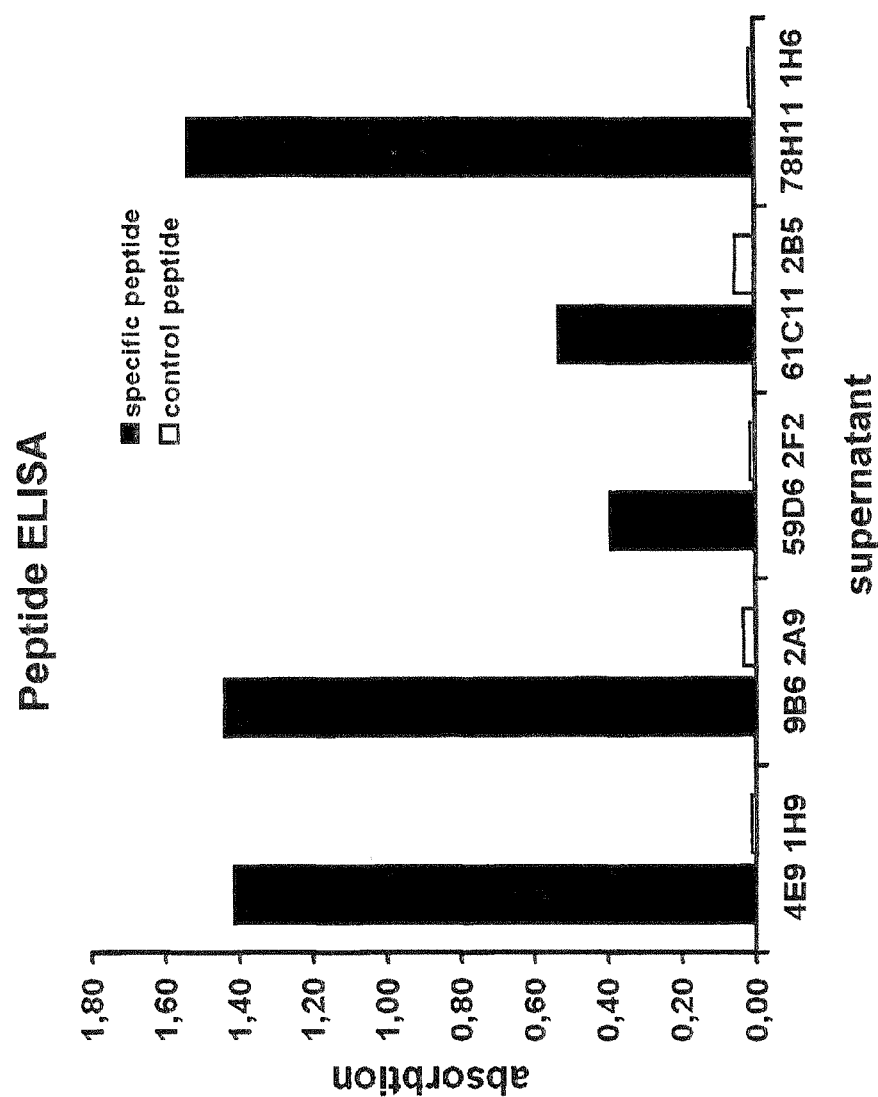


Fig. 8

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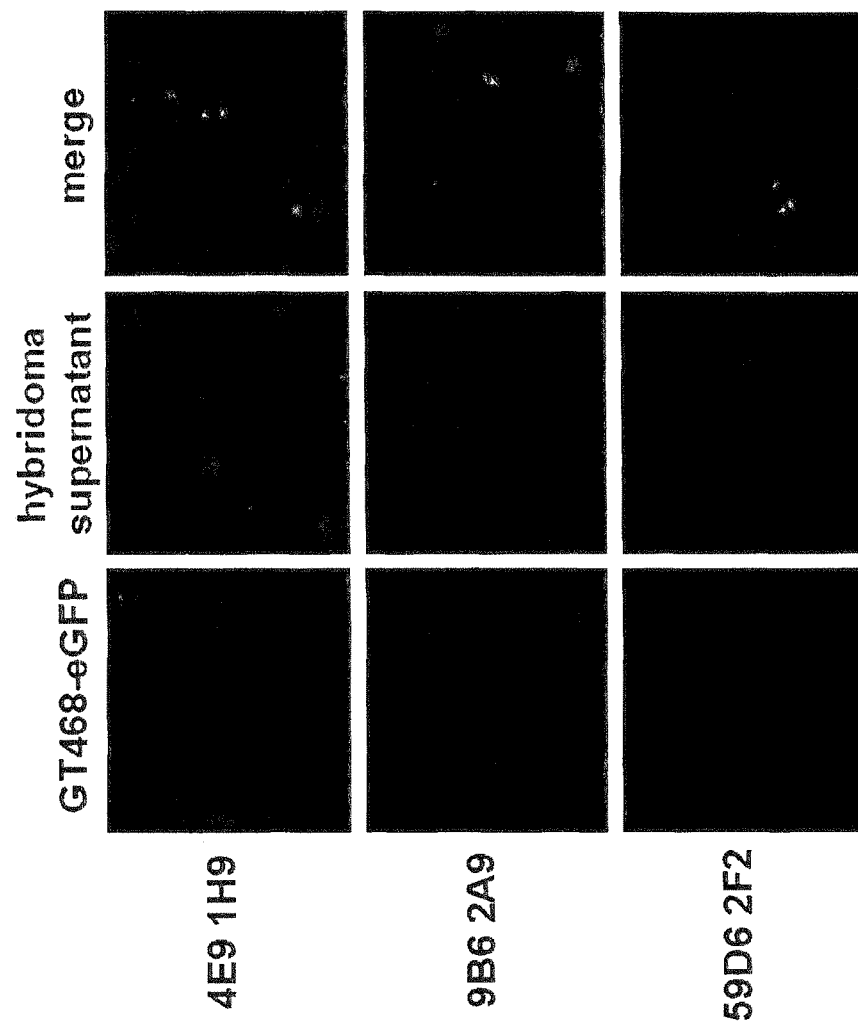


Fig. 9

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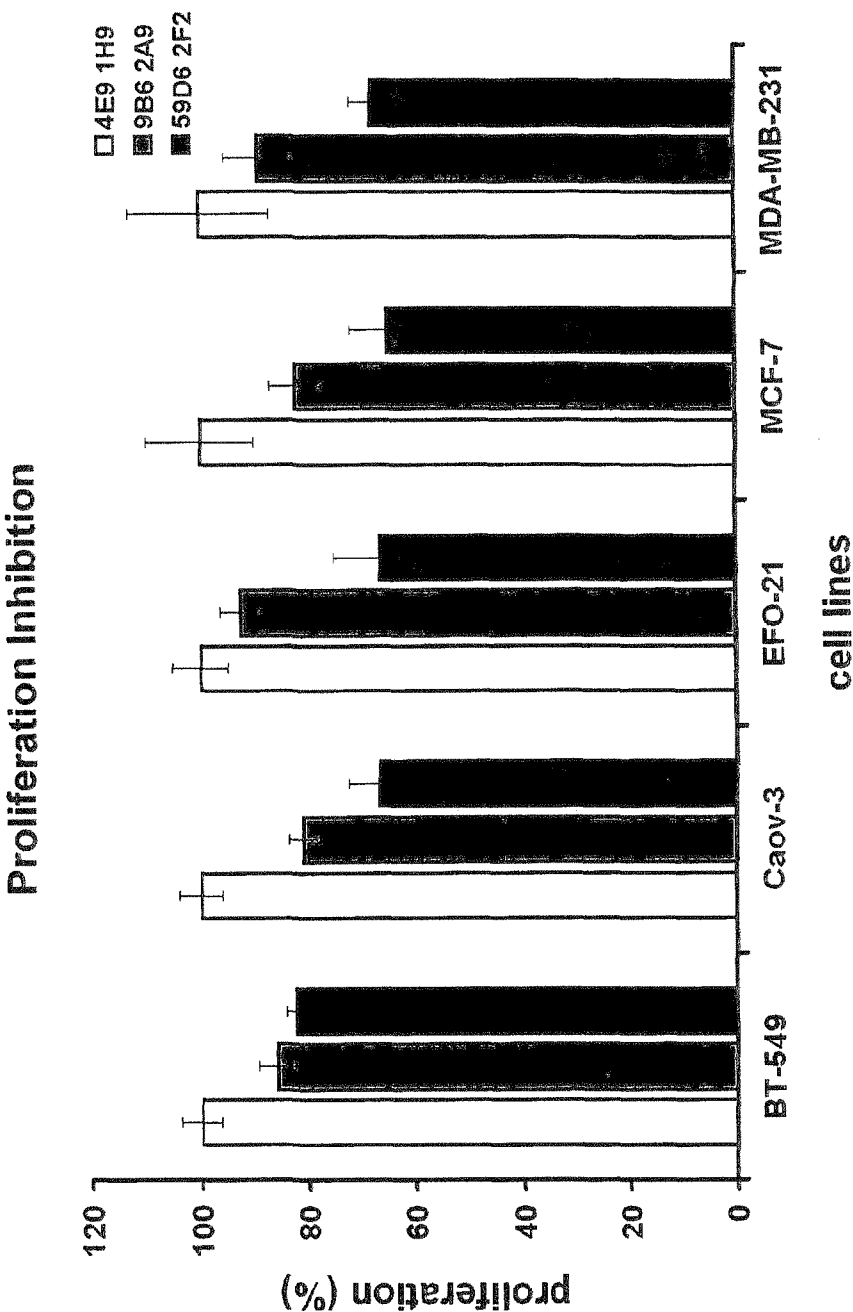


Fig. 10

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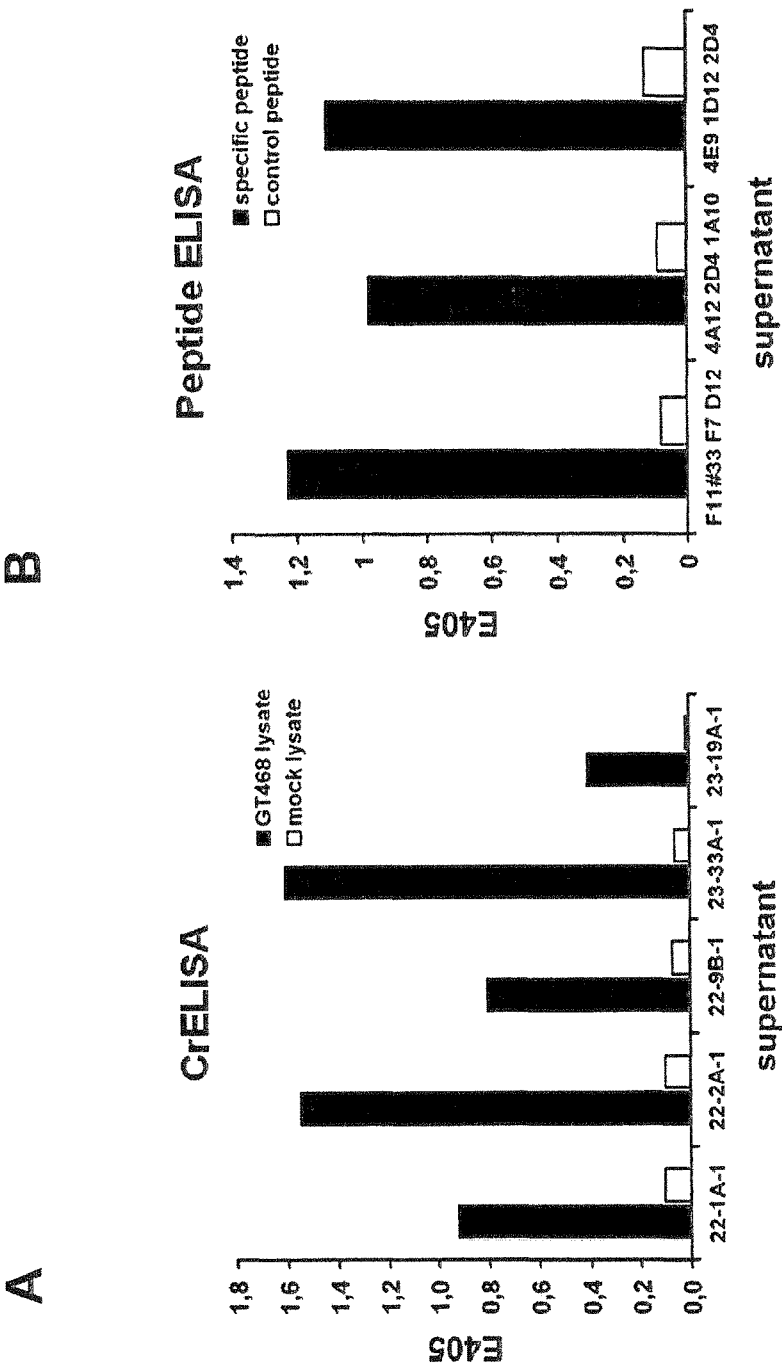


Fig. 11

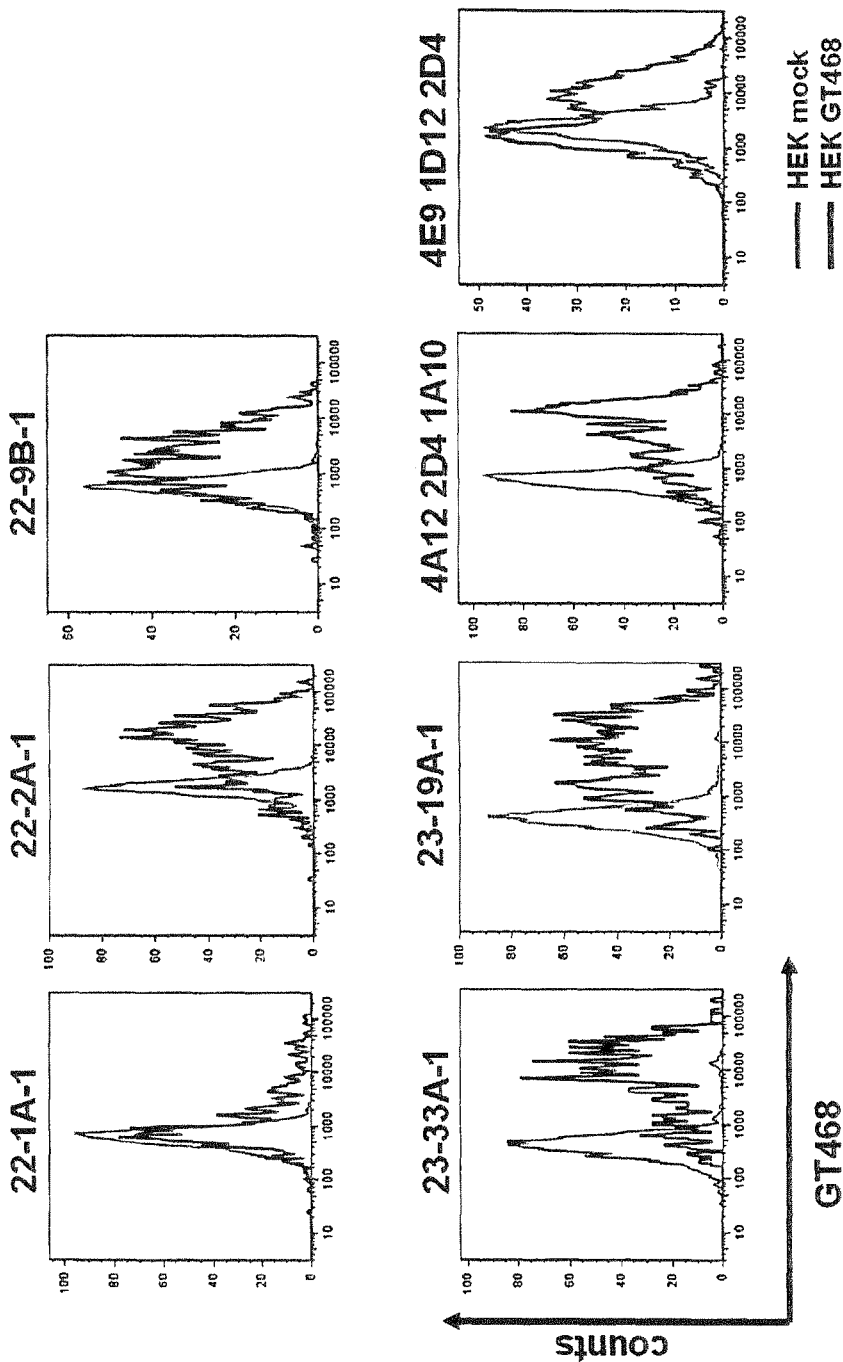


Fig. 12

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Fig. 13

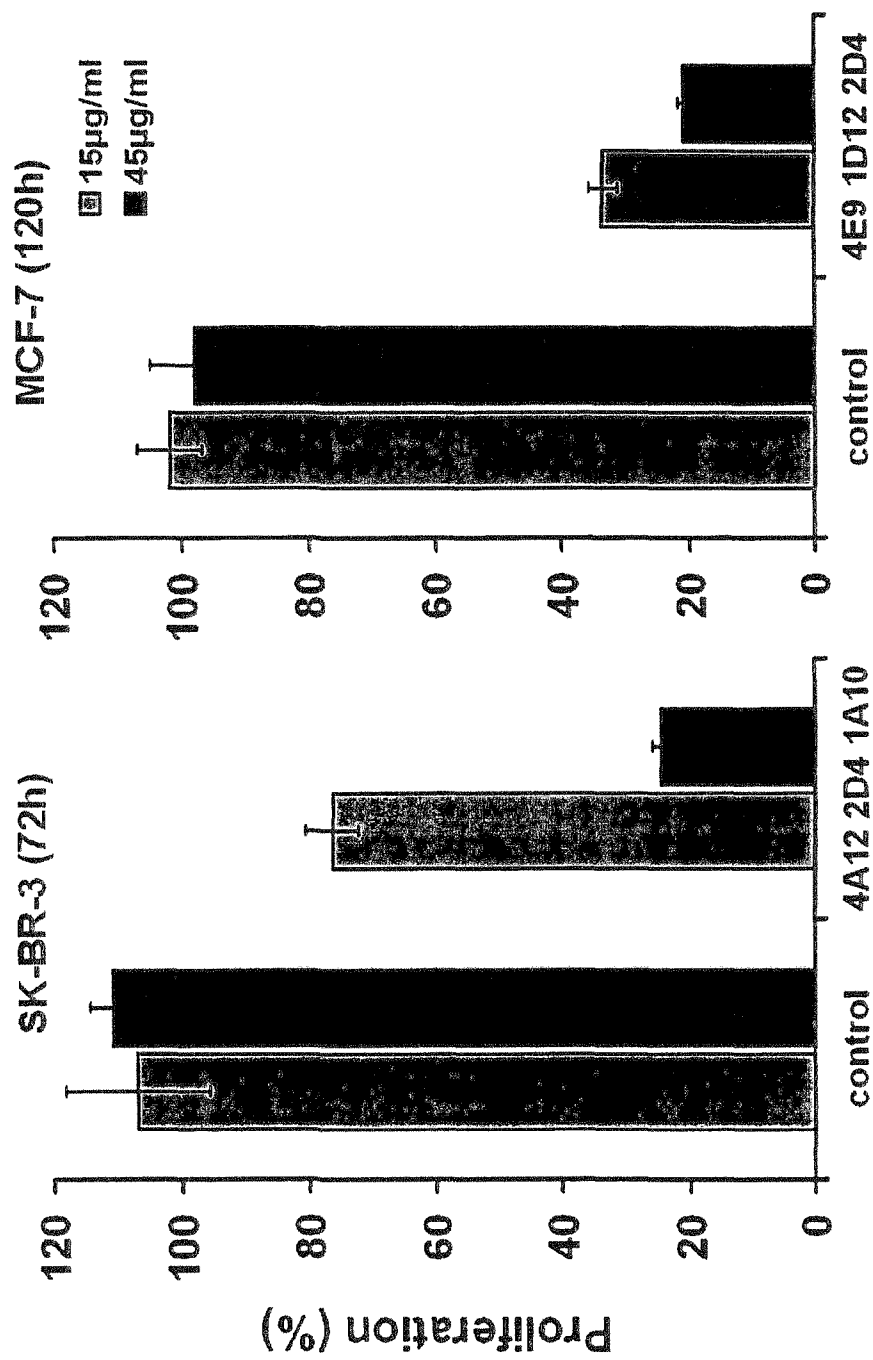
15/16

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3	LMILLTSAFSAGSGQ	28	FVIPVSCAAPQKSPW
4	LTSAFSAGSGQSPMT	29	VSCAAPQKSPWLTKP
5	FSAGSGQSPMTVLC	30	APQKSPWLTKPCSMR
6	SGQSPMTVLCSDWF	31	SPWLTKPCSMRVASK
7	PMTVLCSDWFMVTV	32	TKPCSMRVASKSRAT
8	LCSIDWFMVTVHPPM	33	SMRVASKSRATAQKD
9	DWFMVTVHPPMLNND	34	ASKSRATAQKDEKCY
10	VTVHPPMLNNDVCVH	35	RATAQKDEKCYEVFS
11	PFMLNNDVCVHFHEL	36	QKDEKCYEVFSLSQS
12	NNDVCVHFHELHLGL	37	KCYEVFSLSQSSQRP
13	CVHFHELHLGLGCPP	38	VFSLSQSSQRPNCDC
14	HELHLGLGCPPNHVQ	39	SQSSQRPNCDCPPCV
15	LGLGCPPNHVQPHAY	40	QRPNCDCPPCVFSEE
16	CPPNHVQPHAYQFTY	41	CDCPPCVFSEEEHTQ
17	HVQPHAYQFTYRVTE	42	PCVFSEEEHTQVPC
18	HAYQFTYRVTECGIR	43	SEEEHTQVPCHQAGA
19	FTYRVTECGIRAKAV	44	HTQVPCHQAGAQAQ
20	VTECGIRAKAVSQDM	45	PCHQAGAQAQPLQP
21	GIRAKAVSQDMVIYS	46	AGAQAQPLQPSHFL
22	KAVSQDMVIYSTEIH	47	EAQPLQPSHFLDISE
23	QDMVIYSTEIHYSSK	48	LQPSHFLDISEDWSL
24	IYSTEIHYSSKGTPS	49	HFLDISEDWSLHTDD
25	EIHYSSKGTPSKFVI	50	ISEDWSLHTDDMIGS
		51	SEDWSLHTDDMIGSM

Hybridoma	Reactivity (Peptide)
22-1A-1	50+51
22-2A-1	18, 26-31, 42
22-9B-1	27, 29-31
23-33A-1	47+48
23-19A-1	48+49

Hybridoma	Reactivity (Sequence)
F11#33 F7 D12	VFSLSQSSQRPNC
4A12 2D4 1A10	APQKSPWLTKPC
4A9 1D12 2D4	APQKSPWLTKPC

Fig. 14



SEQUENCE LISTING

<110> Ganymed Pharmaceuticals AG; and
Johannes Gutenberg-Universität Mainz

<120> MONOCLONAL ANTIBODIES FOR TREATMENT OF CANCER

<130> SG1323A

<150> EP07005258.4

<151> 2007-03-14

<150> US60/894,860

<151> 2007-03-14

<160> 79

<170> PatentIn version 3.3

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 35 40 45

Cys Val His Phe His Glu Leu His Leu Gly Leu Gly Cys Pro Pro Asn
 50 55 60

His Val Gln Pro His Ala Tyr Gln Phe Thr Tyr Arg Val Thr Glu Cys
 65 70 75 80

Gly Ile Arg Ala Lys Ala Val Ser Gln Asp Met Val Ile Tyr Ser Thr
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Glu Ile His Tyr Ser Ser Lys Gly Thr Pro Ser Lys Phe Val Ile Pro
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Val Ser Cys Ala Ala Pro Gln Lys Ser Pro Trp Leu Thr Lys Pro Cys
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Ser Met Arg Val Ala Ser Lys Ser Arg Ala Thr Ala Gln Lys Asp Glu
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Lys Cys Tyr Glu Val Phe Ser Leu Ser Gln Ser Ser Gln Arg Pro Asn
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Cys Asp Cys Pro Pro Cys Val Phe Ser Glu Glu Glu His Thr Gln Val
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Pro Cys His Gln Ala Gly Ala Gln Glu Ala Gln Pro Leu Gln Pro Ser
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 Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
 35 40 45
 Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
 50 55 60
 Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn
 65 70 75 80
 Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro
 85 90 95
 Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu
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 Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
 115 120 125
 Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
 130 135 140
 Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
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 Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn
 225 230 235 240
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Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
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Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
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Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
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20 25 30

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
35 40 45

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
50 55 60

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
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Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
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Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
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<213> Artificial

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tggaaggtgg ataacgcctt ccaatcgggt	180
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agcaaggaca gcacctacag cctcagcagc	240
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aaacacaaag tctacgcctg cgaagtcacc	300
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Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
 35 40 45

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
 50 55 60

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
 65 70 75 80

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
 85 90 95

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
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<220>
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          20           25           30

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Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
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Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
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Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn
          65           70           75           80

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Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Pro
 85 90 95

Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu
 100 105 110

Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
 115 120 125

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
 130 135 140

Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
 145 150 155 160

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn
 165 170 175

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
 180 185 190

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro
 195 200 205

Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu
 210 215 220

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
 225 230 235 240

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
 245 250 255

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
 260 265 270

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
 275 280 285

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
 290 295 300

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
 305 310 315 320

Ser Leu Ser Pro Gly Lys
 325

<210> 25
 <211> 21
 <212> DNA
 <213> Artificial

 <220>
 <223> Description of artificial sequence: Oligonucleotide

 <400> 25
 tgacactggc aaaacaatgc a 21

<210> 26
 <211> 21
 <212> DNA
 <213> Artificial

 <220>
 <223> Description of artificial sequence: Oligonucleotide

 <400> 26
 ggtccttttc accagcaagc t 21

<210> 27
 <211> 21
 <212> DNA
 <213> Artificial

 <220>
 <223> Description of artificial sequence: siRNA

 <400> 27
 uaacuguaua aucgacuagt t 21

<210> 28
 <211> 21
 <212> DNA
 <213> Artificial

 <220>
 <223> Description of artificial sequence: siRNA

 <400> 28
 cuagucgauu auacaguag a 21

<210> 29
 <211> 15
 <212> PRT
 <213> Artificial

 <220>
 <223> Description of artificial sequence: Peptide for Screening

 <400> 29

 Met Lys Val Phe Lys Phe Ile Gly Leu Met Ile Leu Leu Thr Ser
 1 5 10 15

<210> 30
<211> 15
<212> PRT
<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 30

Lys	Phe	Ile	Gly	Leu	Met	Ile	Leu	Leu	Thr	Ser	Ala	Phe	Ser	Ala
1				5					10					15

<210> 31
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<212> PRT
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<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 31

Leu	Met	Ile	Leu	Leu	Thr	Ser	Ala	Phe	Ser	Ala	Gly	Ser	Gly	Gln
1			5						10					15

<210> 32
<211> 15
<212> PRT
<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 32

Leu	Thr	Ser	Ala	Phe	Ser	Ala	Gly	Ser	Gly	Gln	Ser	Pro	Met	Thr
1				5					10					15

<210> 33
<211> 15
<212> PRT
<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 33

Phe	Ser	Ala	Gly	Ser	Gly	Gln	Ser	Pro	Met	Thr	Val	Leu	Cys	Ser
1				5					10					15

<210> 34
<211> 15
<212> PRT
<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 34

Ser Gly Gln Ser Pro Met Thr Val Leu Cys Ser Ile Asp Trp Phe
1 5 10 15

<210> 35

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 35

Pro Met Thr Val Leu Cys Ser Ile Asp Trp Phe Met Val Thr Val
1 5 10 15

<210> 36

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 36

Leu Cys Ser Ile Asp Trp Phe Met Val Thr Val His Pro Phe Met
1 5 10 15

<210> 37

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 37

Asp Trp Phe Met Val Thr Val His Pro Phe Met Leu Asn Asn Asp
1 5 10 15

<210> 38

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 38

Val Thr Val His Pro Phe Met Leu Asn Asn Asp Val Cys Val His
1 5 10 15

<210> 39

<211> 15

<212> PRT
 <213> Artificial

 <220>
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 <400> 39

 Pro Phe Met Leu Asn Asn Asp Val Cys Val His Phe His Glu Leu
 1 5 10 15

 <210> 40
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 <212> PRT
 <213> Artificial

 <220>
 <223> Description of artificial sequence: Peptide for Screening

 <400> 40

 Asn Asn Asp Val Cys Val His Phe His Glu Leu His Leu Gly Leu
 1 5 10 15

 <210> 41
 <211> 15
 <212> PRT
 <213> Artificial

 <220>
 <223> Description of artificial sequence: Peptide for Screening

 <400> 41

 Cys Val His Phe His Glu Leu His Leu Gly Leu Gly Cys Pro Pro
 1 5 10 15

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 <212> PRT
 <213> Artificial

 <220>
 <223> Description of artificial sequence: Peptide for Screening

 <400> 42

 His Glu Leu His Leu Gly Leu Gly Cys Pro Pro Asn His Val Gln
 1 5 10 15

 <210> 43
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 <212> PRT
 <213> Artificial

 <220>
 <223> Description of artificial sequence: Peptide for Screening

 <400> 43

Leu Gly Leu Gly Cys Pro Pro Asn His Val Gln Pro His Ala Tyr
1 5 10 15

<210> 44
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<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 44

Cys Pro Pro Asn His Val Gln Pro His Ala Tyr Gln Phe Thr Tyr
1 5 10 15

<210> 45
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 45

His Val Gln Pro His Ala Tyr Gln Phe Thr Tyr Arg Val Thr Glu
1 5 10 15

<210> 46
<211> 15
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<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 46

His Ala Tyr Gln Phe Thr Tyr Arg Val Thr Glu Cys Gly Ile Arg
1 5 10 15

<210> 47
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 47

Phe Thr Tyr Arg Val Thr Glu Cys Gly Ile Arg Ala Lys Ala Val
1 5 10 15

<210> 48
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 48

Val Thr Glu Cys Gly Ile Arg Ala Lys Ala Val Ser Gln Asp Met
1 5 10 15

<210> 49
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 49

Gly Ile Arg Ala Lys Ala Val Ser Gln Asp Met Val Ile Tyr Ser
1 5 10 15

<210> 50
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 50

Lys Ala Val Ser Gln Asp Met Val Ile Tyr Ser Thr Glu Ile His
1 5 10 15

<210> 51
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 51

Gln Asp Met Val Ile Tyr Ser Thr Glu Ile His Tyr Ser Ser Lys
1 5 10 15

<210> 52
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 52

Ile Tyr Ser Thr Glu Ile His Tyr Ser Ser Lys Gly Thr Pro Ser
1 5 10 15

<210> 53
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 53

Glu Ile His Tyr Ser Ser Lys Gly Thr Pro Ser Lys Phe Val Ile
1 5 10 15

<210> 54
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 54

Ser Ser Lys Gly Thr Pro Ser Lys Phe Val Ile Pro Val Ser Cys
1 5 10 15

<210> 55
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 55

Thr Pro Ser Lys Phe Val Ile Pro Val Ser Cys Ala Ala Pro Gln
1 5 10 15

<210> 56
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 56

Phe Val Ile Pro Val Ser Cys Ala Ala Pro Gln Lys Ser Pro Trp
1 5 10 15

<210> 57
<211> 15
<212> PRT
<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 57

Val Ser Cys Ala Ala Pro Gln Lys Ser Pro Trp Leu Thr Lys Pro
1 5 10 15

<210> 58

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 58

Ala Pro Gln Lys Ser Pro Trp Leu Thr Lys Pro Cys Ser Met Arg
1 5 10 15

<210> 59

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 59

Ser Pro Trp Leu Thr Lys Pro Cys Ser Met Arg Val Ala Ser Lys
1 5 10 15

<210> 60

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 60

Thr Lys Pro Cys Ser Met Arg Val Ala Ser Lys Ser Arg Ala Thr
1 5 10 15

<210> 61

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 61

Ser Met Arg Val Ala Ser Lys Ser Arg Ala Thr Ala Gln Lys Asp
1 5 10 15

<210> 62
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening
<400> 62

Ala Ser Lys Ser Arg Ala Thr Ala Gln Lys Asp Glu Lys Cys Tyr
1 5 10 15

<210> 63
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening
<400> 63

Arg Ala Thr Ala Gln Lys Asp Glu Lys Cys Tyr Glu Val Phe Ser
1 5 10 15

<210> 64
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening
<400> 64

Gln Lys Asp Glu Lys Cys Tyr Glu Val Phe Ser Leu Ser Gln Ser
1 5 10 15

<210> 65
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening
<400> 65

Lys Cys Tyr Glu Val Phe Ser Leu Ser Gln Ser Ser Gln Arg Pro
1 5 10 15

<210> 66
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 66

Val Phe Ser Leu Ser Gln Ser Ser Gln Arg Pro Asn Cys Asp Cys
1 5 10 15

<210> 67

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 67

Ser Gln Ser Ser Gln Arg Pro Asn Cys Asp Cys Pro Pro Cys Val
1 5 10 15

<210> 68

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 68

Gln Arg Pro Asn Cys Asp Cys Pro Pro Cys Val Phe Ser Glu Glu
1 5 10 15

<210> 69

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 69

Cys Asp Cys Pro Pro Cys Val Phe Ser Glu Glu Glu His Thr Gln
1 5 10 15

<210> 70

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Description of artificial sequence: Peptide for Screening

<400> 70

Pro Cys Val Phe Ser Glu Glu Glu His Thr Gln Val Pro Cys His
1 5 10 15

<210> 71

<211> 15

<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 71

Ser Glu Glu Glu His Thr Gln Val Pro Cys His Gln Ala Gly Ala
1 5 10 15

<210> 72
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 72

His Thr Gln Val Pro Cys His Gln Ala Gly Ala Gln Glu Ala Gln
1 5 10 15

<210> 73
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 73

Pro Cys His Gln Ala Gly Ala Gln Glu Ala Gln Pro Leu Gln Pro
1 5 10 15

<210> 74
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 74

Ala Gly Ala Gln Glu Ala Gln Pro Leu Gln Pro Ser His Phe Leu
1 5 10 15

<210> 75
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 75

Glu Ala Gln Pro Leu Gln Pro Ser His Phe Leu Asp Ile Ser Glu
1 5 10 15

<210> 76
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 76

Leu Gln Pro Ser His Phe Leu Asp Ile Ser Glu Asp Trp Ser Leu
1 5 10 15

<210> 77
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 77

His Phe Leu Asp Ile Ser Glu Asp Trp Ser Leu His Thr Asp Asp
1 5 10 15

<210> 78
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 78

Ile Ser Glu Asp Trp Ser Leu His Thr Asp Asp Met Ile Gly Ser
1 5 10 15

<210> 79
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Description of artificial sequence: Peptide for Screening

<400> 79

Ser Glu Asp Trp Ser Leu His Thr Asp Asp Met Ile Gly Ser Met
1 5 10 15