Light Chain

FR1

Rat aD11	DIQMTQSPASLSASLGETVTIEC (SEQ ID NO:28)
Canine VK	DIVMTQSPASLSLSQEEKVTITC (SEQ ID NO:29)
Feline VK	DIVMTQTPLSLSVTPGEPASISC (SEQ ID NO:30)
Equine VK	DIVMTQSPASLSASLGETVTIEC (SEQ ID NO:31)

FR2

Rat aD11	WYQQKPGKSPQLLIY (SEQ ID NO:32)
Canine VK	WYQQKPGQAPKLLIY (SEQ ID NO:33)
Feline VK	WYLQKPGQSPRRLIY (SEQ ID NO:34)
Equine VK	WYQQKPGQSPKLLIY (SEQ ID NO:35)

FR3

Rat aD11	GVPSRFSGSGSGTQYSLKINSLQSEDVASYFC (SEQ ID NO:36)
Canine VK	GVPSRFSGSGSGTEFSLTISSLEPEDVAVYYC (SEQ ID NO:37)
Feline VK	GVPDRFSGSGSGTDFTLRISRVEADDVGVYFC (SEQ ID NO:38)
Equine VK	GVPSRFSGSGSGTDYSLTINSLQSEDVASYFC (SEQ ID NO:39)

FR4

Rat aD11	FGGGTKLELK (SEQ ID NO:40)
Canine VK	FGAGTKVELK (SEQ ID NO:41)
Feline VK	FGPGTKLEIK (SEQ ID NO:42)
Equine VK	FGQGTKLELK (SEQ ID NO:43)

Figure 1

Heavy Chain

FR1

Rat aD11	QVQLKESGPGLVQPSQTLSLTCTVSGF (SEQ ID NO:44)
Canine VH	EVQLVESGGDLVNPGGTLTLSCVVSGF (SEQ ID NO:45)
Feline VH	QVQLVESGGDLVQPGGSLRLTCAASGF (SEQ ID NO:46)
Equine VH	QVQLKESGPGLVNPSQTLSLTCTVSGF (SEQ ID NO:47)

FR2

Rat aD11	WVRQATGRGLEWMG (SEQ ID NO:48)
Canine VH	WVRQALGRGLEWVG (SEQ ID NO:49)
Feline VH	WVRQAPGKGLEWMG (SEQ ID NO:50)
Equine VH	WVRQAPGKGLEWVG (SEQ ID NO:51)

FR3

Rat aD11	RLTITRDTSKSQVFLKMHSLQSEDTATYYCAR (SEQ ID NO:52)
Canine VH	RLTITRDTSKSTVFLQMHSLRSEDTATYYCAR (SEQ ID NO:53)
Feline VH	RFTISRDNAKNTLYLQMNSLKTEDTATYYCAR (SEQ ID NO:54)
Equine VH	RATITRDTSKSQVFLQMNSLTSEDTAVYYCAR (SEQ ID NO:55)

FR4

Rat aD11	WGQGT**T**VTVSS (SEQ ID NO:56)
Canine VH	WGQGTLVTVSS (SEQ ID NO:57)
Feline VH	WGQGTLVTVSS (SEQ ID NO:58)
Equine VH	WGQGILVTVSS (SEQ ID NO:59)

Figure 2

SEQ ID NO:1 – CANINE VK

DIVMTQSPASLSLSQEEKVTITCRASEDIYNALAWYQQKPGQAPKLLIYNTDTLHTG
VPSRFSGSGSGTEFSLTISSLEPEDVAVYYCQHYFHYPRTFGAGTKVELK

SEQ ID NO:2 – CANINE VH

EVQLVESGGDLVNPGGTLTLSCVVSGFSLTNNNVNWVRQALGRGLEWVGGVWA
GGATDYNSALKSRLTITRDTSKSTVFLQMHSLRSEDTATYYCARDGGYSSSTLYA
MDAWGQGTLVTVSS

SEQ ID NO:7 – CANINE VK AND CANINE KAPPA LIGHT CHAIN CONSTANT

DIVMTQSPASLSLSQEEKVTITCRASEDIYNALAWYQQKPGQAPKLLIYNTDTLHTG
VPSRFSGSGSGTEFSLTISSLEPEDVAVYYCQHYFHYPRTFGAGTKVELKRNDAQ
PAVYLFQPSPDQLHTGSASVVCLLNSFYPKDINVKWKVDGVIQDTGIQESVTEQDK
DSTYSLSSTLTMSSTEYLSHELYSCEITHKSLPSTLIKSFQRSECQRVD

SEQ ID NO:8 – CANINE VH AND CANINE HEAVY CHAIN B CONSTANT

EVQLVESGGDLVNPGGTLTLSCVVSGFSLTNNNVNWVRQALGRGLEWVGGVWA
GGATDYNSALKSRLTITRDTSKSTVFLQMHSLRSEDTATYYCARDGGYSSSTLYA
MDAWGQGTLVTVSSASTTAPSVFPLAPSCGSTSGSTVALACLVSGYFPEPVTVS
WNSGSLTSGVHTFPSVLQSSGLYSLSSMVTVPSSRWPSETFTCNVAHPASKTKV
DKPVPKRENGRVPRPPDCPKCPAPEMLGGPSVFIFPPKPKDTLLIARTPEVTCVVV
DLDPEDPEVQISWFVDGKQMQTAKTQPREEQFNGTYRVVSVLPIGHQDWLKGKQ
FTCKVNNKALPSPIERTISKARGQAHQPSVYVLPPSREELSKNTVSLTCLIKDFYPP
DIDVEWQSNGQQEPESKYRTTPPQLDEDGSYFLYSKLSVDKSRWQRGDTFICAV
MHEALHNHYTQESLSHSPGK

Figure 3

SEQ ID NO:3 – FELINE VK

DIVMTQTPLSLSVTPGEPASISCRASEDIYNALAWYLQKPGQSPRRLIYNTDTLHTGV
PDRFSGSGSGTDFTLRISRVEADDVGVYFCQHYFHYPRTFGPGTKLEIK

SEQ ID NO:4 – FELINE VH

QVQLVESGGDLVQPGGSLRLTCAASGFSLTNNNVNWVRQAPGKGLEWMGGVWA
GGATDYNSALKGRFTISRDNAKNTLYLQMNSLKTEDTATYYCARDGGYSSSTLYAM
DAWGQGTLVTVSS

SEQ ID SEQ ID NO:9 – FELINE VK AND FELINE KAPPA LIGHT CHAIN CONSTANT

DIVMTQTPLSLSVTPGEPASISCRASEDIYNALAWYLQKPGQSPRRLIYNTDTLHTGV
PDRFSGSGSGTDFTLRISRVEADDVGVYFCQHYFHYPRTFGPGTKLEIKRSDAQPS
VFLFQPSLDELHTGSASIVCILNDFYPKEVNVKWKVDGVVQTKASKESTTEQNSKDS
TYSLSSTLTMSRTEYQSHEKFSCEVTHKSLASTLVKSFNRSECQRE

SEQ ID NO:10 – FELINE VH AND FELINE HEAVY CHAIN CONSTANT

QVQLVESGGDLVQPGGSLRLTCAASGFSLTNNNVNWVRQAPGKGLEWMGGVWA
GGATDYNSALKGRFTISRDNAKNTLYLQMNSLKTEDTATYYCARDGGYSSSTLYAM
DAWGQGTLVTVSSASTTAPSVFPLAPSCGTTSGATVALACLVLGYFPEPVTVSWNS
GALTSGVHTFPAVLQASGLYSLSSMVTVPSSRWLSDTFTCNVAHPPSNTKVDKTVR
KTDHPPGPKPCDCPKCPPPEMLGGPSIFIFPPKPKDTLSISRTPEVTCLVVDLGPDD
SDVQITWFVDNTQVYTAKTSPREEQFNSTYRVVSVLPILHQDWLKGKEFKCKVNSK
SLPSPIERTISKAKGQPHEPQVYVLPPAQEELSRNKVSVTCLIKSFHPPDIAVEWEIT
GQPEPENNYRTTPPQLDSDGTYFVYSKLSVDRSHWQRGNTYTCSVSHEALHSHHT
QKSLTQSPGK

Figure 4

SEQ ID NO:5 – EQUINE VK

DIVMTQSPASLSASLGETVTIECRASEDIYNALAWYQQKPGQSPKLLIYNTDTLHTG
VPSRFSGSGSGTDYSLTINSLQSEDVASYFCQHYFHYPRTFGQGTKLELK

SEQ ID NO:6 - EQUINE VH

QVQLKESGPGLVNPSQTLSLTCTVSGFSLTNNNVNWVRQAPGKGLEWVGGVWA
GGATDYNSALKSRATITRDTSKSQVFLQMNSLTSEDTAVYYCARDGGYSSSTLYA
MDAWGQGILVTVSS

SEQ ID NO: 11 – EQUINE VK AND FELINE KAPPA LIGHT CHAIN CONSTANT

DIVMTQSPASLSASLGETVTIECRASEDIYNALAWYQQKPGQSPKLLIYNTDTLHTG
VPSRFSGSGSGTDYSLTINSLQSEDVASYFCQHYFHYPRTFGQGTKLELKRDDAK
PSAFIFPPSSEELSSGSASVVCLVYGFYPSGATINWKVDGLAKTSSFHSSLTEQDS
KDNTYSLSSTLTLPKADYEAHNVYACEVSHKTLSSPLVKSFKRQDC

SEQ ID NO: 12 – EQUINE VH AND EQUINE HEAVY CHAIN 2 CONSTANT

QVQLKESGPGLVNPSQTLSLTCTVSGFSLTNNNVNWVRQAPGKGLEWVGGVWA
GGATDYNSALKSRATITRDTSKSQVFLQMNSLTSEDTAVYYCARDGGYSSSTLYA
MDAWGQGILVTVSSASTTAPKYFQLTPSCGITSDATVALGCLVSDYYPEPVTVSW
NSGALTSGVHTFPSVLQSSGLYALSSMVTVPASTWTSETYICNVAHPASSTKVDK
RIPPCVLSAEGVIPIPSVPKPQCPPYTHSKFLGGPSVFIFPPNPKDALMISRTPVVTC
VVVNLSDQYPDVQFSWYVDNTEVHSAITKQREAQFNSTYRVVSVLPIQHQDWLS
GKEFKCSVTNVGVPQPISRAISRGKGPSRVPQVYVLPPHPDELAKSKVSVTCLVKD
FYPPDISVEWQSNRWPELEGKYSTTPAQLDGDGSYFLYSKLSLETSRWQQVESF
TCAVMHEALHNHFTKTDISESLGK

Figure 5

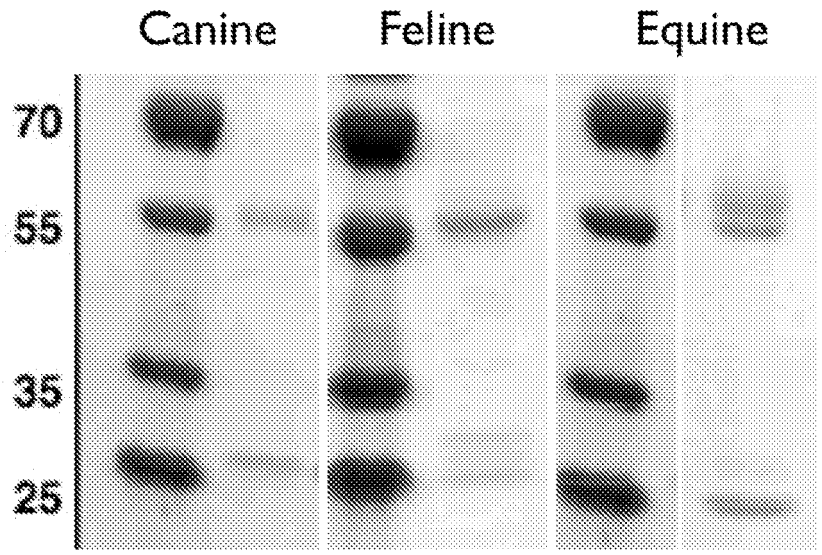


Figure 6

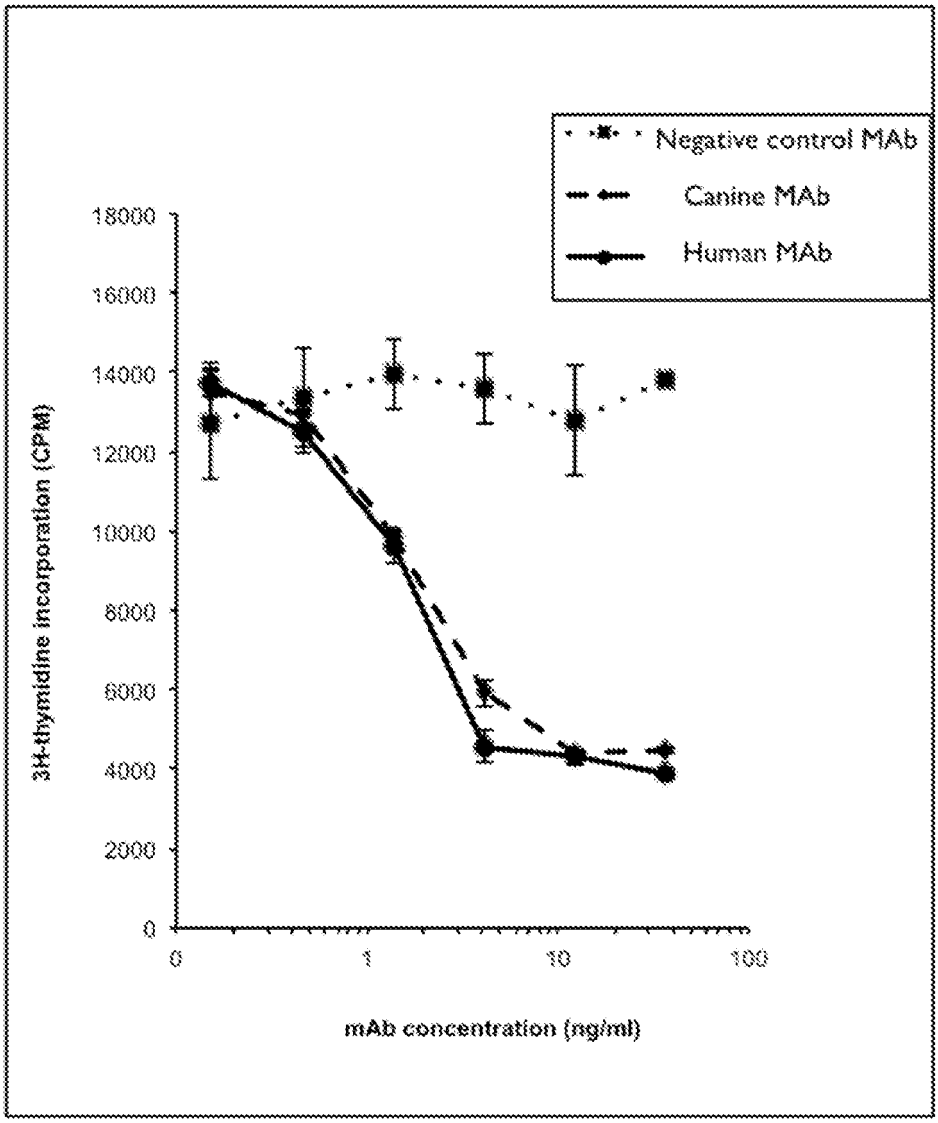

Negative control MAb
Canine MAb
Human MAb
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
3H-thymidine incorporation (CPM)
0
1
10
100
mAb concentration (ng/ml)

Figure 7A

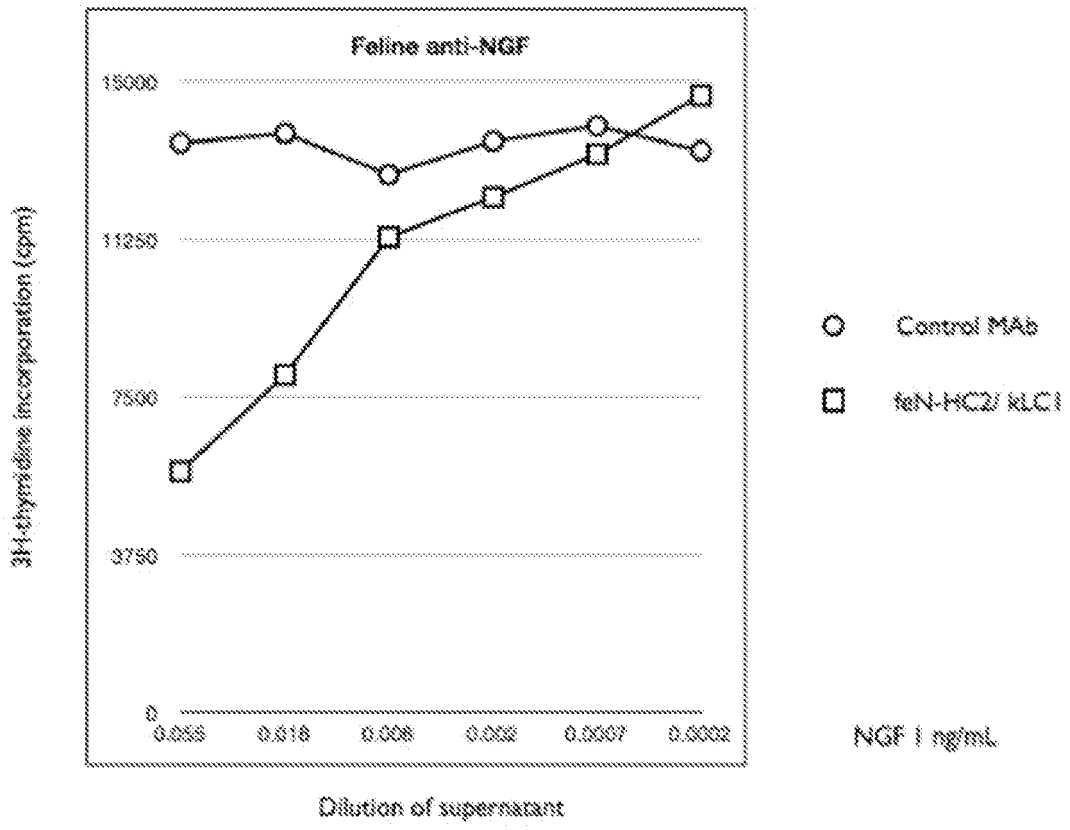

Feline anti-NGF
15000
11250
7500
3750
0
3H-thymidine incorporation (cpm)
0.056
0.018
0.006
0.002
0.0007
0.0002
Dilution of supernatant
Control MAb
feN-HC2/ kLC1
NGF I ng/mL

Figure 7B

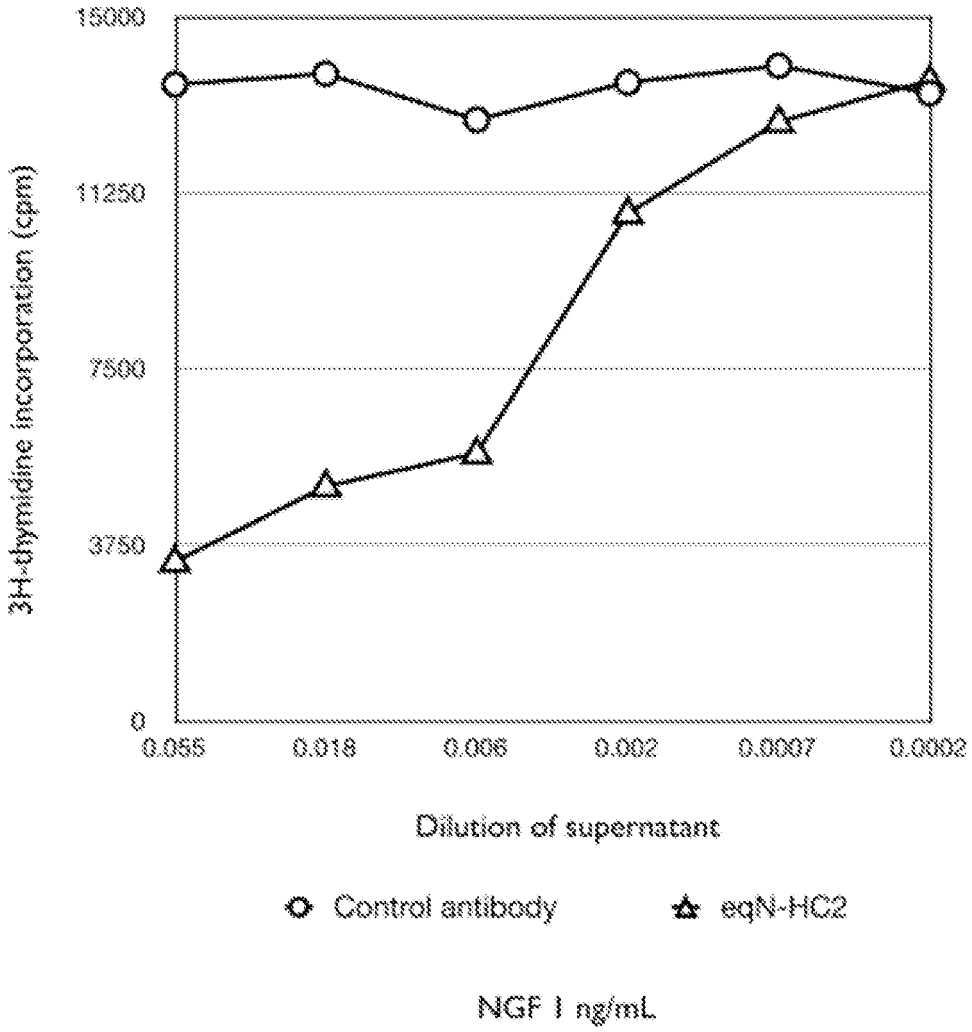

15000
11250
7500
3750
0
3H-thymidine incorporation (cpm)
0.055
0.018
0.006
0.002
0.0007
0.0002
Dilution of supernatant
Control antibody
eqN-HC2
NGF I ng/mL

Figure 7C

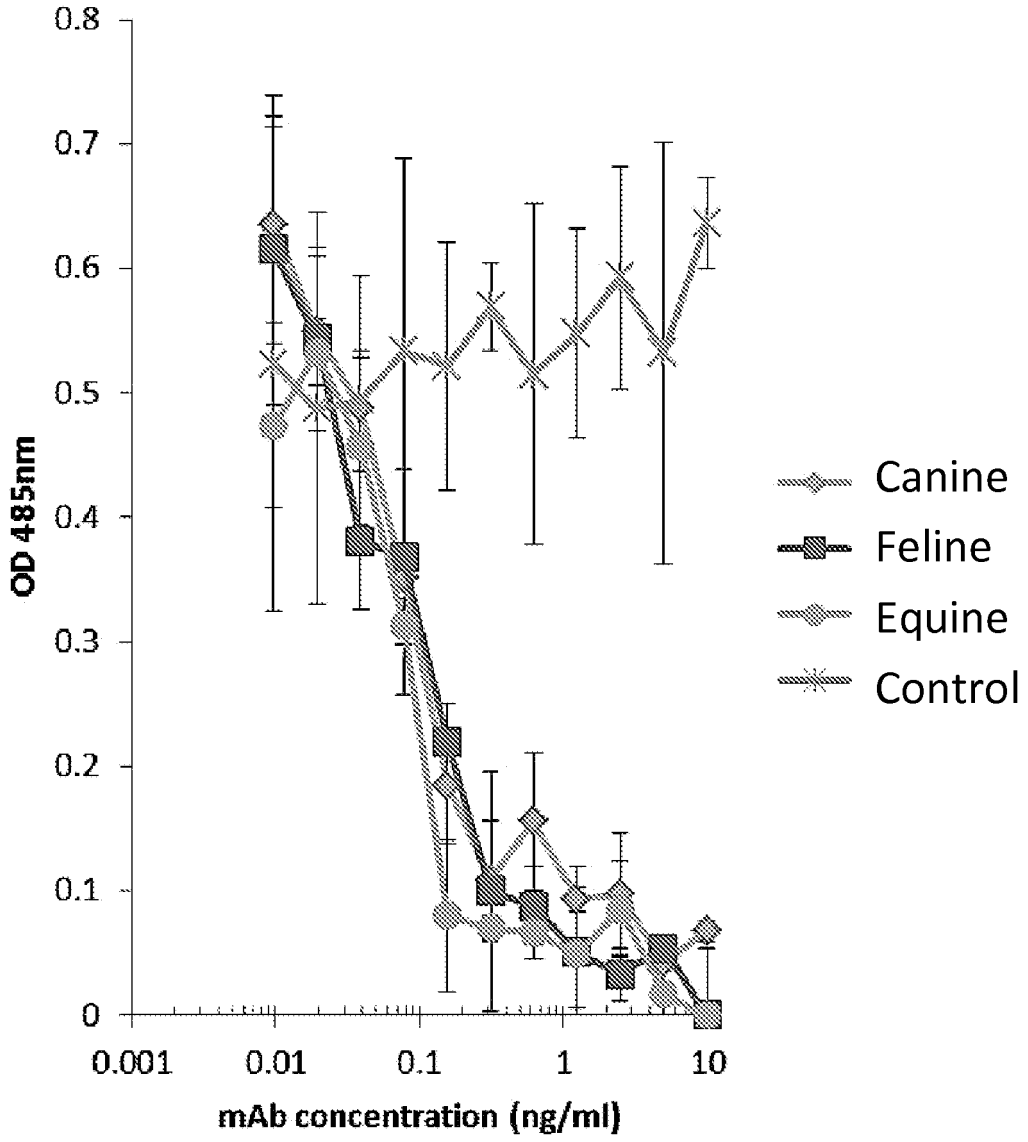

0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
OD 485nm
0.001
0.01
0.1
1
10
mAb concentration (ng/ml)
Canine
Feline
Equine
Control

Figure 7D

Light Chain

New Hu LC FR1	DIQMTQSPASLSASLGETVTINC	SEQ ID NO:60
Rat aDll Ruberti	E	
Hu-aDll Pavone	S V DR T	
New Hu LC FR2	WYQQKPGKSPQLLIY	SEQ ID NO:61
Rat aDll Ruberti		
Hu-aDll Pavone	A K	
New Hu LC FR3	GVPSRFSGSGSGTEYSLKINSLQSEDVASYFC	SEQ ID NO:62
Rat aDll Ruberti	Q	
Hu-aDll Pavone	D T T S P F T	
New Hu LC FR4	FGGGTKLEIK	SEQ ID NO:63
Rat aDll Ruberti	L	
Hu-aDll Pavone	Q V I	

Figure 8A

Heavy Chain

New Hu HC FR1	QVQLKESGPGLVQPSQTLSLTCTVSGF	SEQ ID NO:64
Rat aD11 Ruberti		
Hu-aD11 Pavone	E V G GGS R S AA	
New Hu HC FR2	WVRQASGRGLEWMG	SEQ ID NO:65
Rat aD11 Ruberti	T	
Hu-aD11 Pavone	P K V	
New Hu HC FR3	RLTITRDTSKSQVFLKMHSLQSEDTATYYCAR	SEQ ID NO:66
Rat aD11 Ruberti		
Hu-aD11 Pavone	F S N NTAY Q N RA V	
New Hu HC FR4	WGQGTTVTVSS	SEQ ID NO:67
Rat aD11 Ruberti	S	
Hu-aD11 Pavone	L	

Figure 8B

SEQ ID NO:13 New Hu αD11 VL

DIQMTQSPASLSASLGETVTINCRASEDIYN
ALAWYQQKPGKSPQLLIYNTDTLHTGVPS
RFSGSGSGTEYSLKINSLQSEDVASYFCQ
HYFHYPRTFGGGTKLEIK

SEQ ID NO:14 New Hu αD11 VH

QVQLKESGPGLVQPSQTLSLTCTVSGFSL
TNNNVNWVRQASGRGLEWMGGVWAGGA
TDYNSALKSRLTITRDTSKSQVFLKMHSLQ
SEDTATYYCARDGGYSSSTLYAMDAWGQ
GTTVTVSS

Figure 9A

SEQ ID NO:24 - new Hu αD11 complete HC-IgG4

MAVLVLLLCLVTFPTCVLSQVQLKESGPGLVQPSQTLS
LTCTVSGFSLTNNNVNWVRQASGRGLEWMGGVWAG
GATDYNSALKSRLTITRDTSKSQVFLKMHSLQSEDTAT
YYCARDGGYSSSTLYAMDAWGQGTTVTVSSASTKGP
SVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNS
GALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTKTY
TCNVDHKPSNTKVDKRVESKYGPPCPPCPAPEFLGGP
SVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDPEVQFN
WYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQD
WLNGKEYKCKVSNKGLPSSIEKTISKAKGQPREPQVY
TLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQ
PENNYKTTPPVLDSDGSFFLYSRLTVDKSRWQEGNVF
SCSVMHEALHNHYTQKSLSLSLGK**

SEQ ID NO:25 - new Hu αD11 complete kappa LC

MGVPTQLLGLLLLWITDAICDIQMTQSPASLSASLGE
TVTINCRASEDIYNALAWYQQKPGKSPQLLIYNTDTL
HTGVPSRFSGSGSGTEYSLKINSLQSEDVASYFCQH
YFHYPRTFGGGTKLEIKRTVAAPSVFIFPPSDEQLKS
GTASVVCLLNNFYPREAKVQWKVDNALQSGNSQES
VTEQDSKDSTYSLSSTLTLSKADYEKHKVYACEVTH
QGLSSPVTKSFNRGEC**

Figure 9B

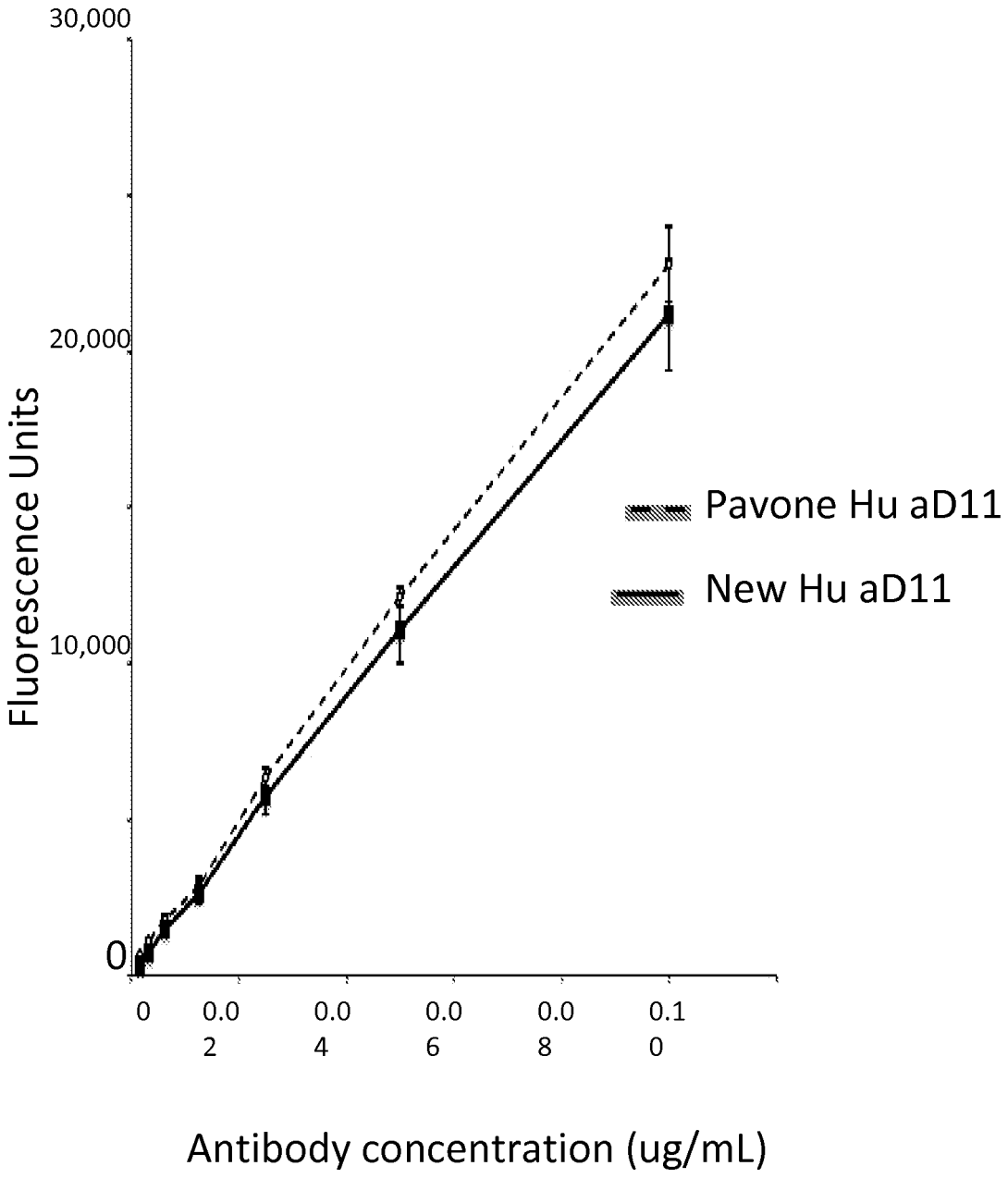

30,000
20,000
10,000
0
Fluorescence Units
0
0.02
0.04
0.06
0.08
0.10
Antibody concentration (ug/mL)
Pavone Hu aD11
New Hu aD11

Figure 9C

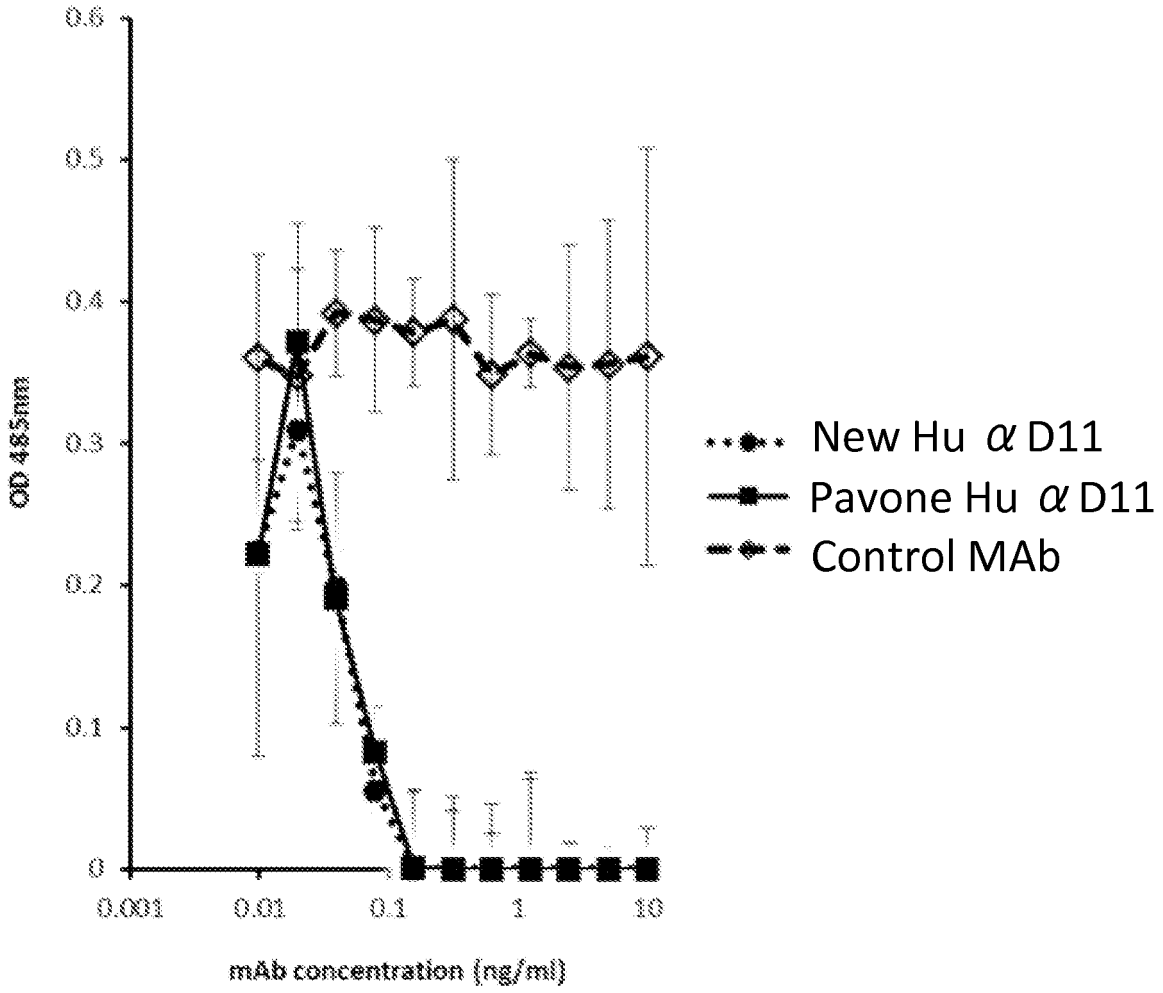

0.6
0.5
0.4
0.3
0.2
0.1
0
OD 485nm
0.001
0.01
0.1
1
10
mAb concentration (ng/ml)
New Hu α D11
Pavone Hu α D11
Control MAb

Figure 9D

SEQ ID NO 15: Caninised anti-TNF Mab VK domain

DIVMTQSPASLSLSQEEKVTITCRASQGIRNYLA WYQQKPGQAPKLLIYAASTLQSGVPSRFSGSGS GTDFTLTISSLEPEDVAVYYCQRYNRAPYTFGQG TKVEIK

SEQ ID NO 16: Caninised anti-TNF MAb VH domain

EVQLVESGGGLVQPGGSLRLSCAASGFTFDDY AMHWVRQAPGKGLEWVSAITWNSGHIDYADSV EGRFTISRDNAKNSLYLQMNSLRAEDTAVYYCA KVSYLSTASSLDYWGQGTLVTVSS

Figure 10

SEQ ID NO 17: Caninised anti-TNF MAb kappa light chain

**DIVMTQSPASLSLSQEEKVTITCRASQGIRNYLA
WYQQKPGQAPKLLIYAASTLQSGVPSRFSGSGS
GTDFTLTISSLEPEDVAVYYCQRYNRAPYTFGQG
TKVEIKRNDAQPAVYLFQPSPDQLHTGSASVVC
LLNSFYPKDINVKWKVDGVIQDTGIQESVTEQDK
DSTYSLSSTLTMSSTEYLSHELYSCEITHKSLPST
LIKSFQRSECQRVD***

Figure 11

SEQ ID NO 18: Caninised anti-TNF Mab heavy chain A type constant domain

EVQLVESGGGLVQPGGSLRLSCAASGFTFDDYAMHWVRQAPGKGLEWVSAITWNSGHIDY
ADSVEGRFTISRDNAKNSLYLQMNSLRAEDTAVYYCAKVSYLSTASSLDYWGQGTLVTVS
SASTTAPSVFPLAPSCGSTSGSTVALACLVSGYFPEPVTVSWNSGSLTSGVHTFPSVLQS
SGLHSLSSMVTVPSSRWPSETFTCNVVHPASNTKVDKPVFNECRCTDTPPCPVPEPLGGP
SVLIFPPKPKDILRITRTPEVTCVVLDLGREDPEVQISWFVDGKEVHTAKTQSREQQFNG
TYRVVSVLPIEHQDWLTGKEFKCRVNHIDLPSPIERTISKARGRAHKPSVYVLPPSPKEL
SSSDTVSITCLIKDFYPPDIDVEWQSNGQQEPERKHRMTPPQLDEDGSYFLYSKLSVDKS
RWQQGDPFTCAVMHETLQNHYTDLSLSHSPGK*

SEQ ID NO 19: Caninised anti-TNF Mab heavy chain B type constant domain

EVQLVESGGGLVQPGGSLRLSCAASGFTFDDYAMHWVRQAPGKGLEWVSAITWNSGHIDY
ADSVEGRFTISRDNAKNSLYLQMNSLRAEDTAVYYCAKVSYLSTASSLDYWGQGTLVTVS
SASTTAPSVFPLAPSCGSTSGSTVALACLVSGYFPEPVTVSWNSGSLTSGVHTFPSVLQS
SGLYSLSSMVTVPSSRWPSETFTCNVAHPASKTKVDKPVPKRENGRVPRPPDCPKCPAPE
MLGGPSVFIFPPKPKDTLLIARTPEVTCVVVDLDPEDPEVQISWFVDGKQMQTAKTQPRE
EQFNGTYRVVSVLPIGHQDWLKGKQFTCKVNNKALPSPIERTISKARGQAHQPSVYVLPP
SREELSKNTVSLTCLIKDFYPPDIDVEWQSNGQQEPESKYRTTPPQLDEDGSYFLYSKLS
VDKSRWQRGDTFICAVMHEALHNHYTQESLSHSPGK*

SEQ ID NO 20: Caninised anti-TNF Mab heavy chain C type constant domain

EVQLVESGGGLVQPGGSLRLSCAASGFTFDDYAMHWVRQAPGKGLEWVSAITWNSGHIDY
ADSVEGRFTISRDNAKNSLYLQMNSLRAEDTAVYYCAKVSYLSTASSLDYWGQGTLVTVS
SASTTAPSVFPLAPSCGSQSGSTVALACLVSGYIPEPVTVSWNSVSLTSGVHTFPSVLQS
SGLYSLSSMVTVPSSRWPSETFTCNVAHPATNTKVDKPVAKECECKCNCNNCPCPGCGLL
GGPSVFIFPPKPKDILVTARTPTVTCVVVDLDPENPEVQISWFVDSKQVQTANTQPREEQ
SNGTYRVVSVLPIGHQDWLSGKQFKCKVNNKALPSPIEEIISKTPGQAHQPNVYVLPPSR
DEMSKNTVTLTCLVKDFFPPEIDVEWQSNGQQEPESKYRMTPPQLDEDGSYFLYSKLSVD
KSRWQRGDTFICAVMHEALHNHYTQISLSHSPGK*

SEQ ID NO 21: Caninised anti-TNF Mab heavy chain D type constant domain

EVQLVESGGGLVQPGGSLRLSCAASGFTFDDYAMHWVRQAPGKGLEWVSAITWNSGHIDY
ADSVEGRFTISRDNAKNSLYLQMNSLRAEDTAVYYCAKVSYLSTASSLDYWGQGTLVTVS
SASTTAPSVFPLAPSCGSTSGSTVALACLVSGYFPEPVTVSWNSGSLTSGVHTFPSVLQS
SGLYSLSSTVTVPSSRWPSETFTCNVVHPASNTKVDKPVPKESTCKCISPCPVPESLGGP
SVFIFPPKPKDILRITRTPEITCVVLDLGREDPEVQISWFVDGKEVHTAKTQPREQQFNS
TYRVVSVLPIEHQDWLTGKEFKCRVNHIGLPSPIERTISKARGQAHQPSVYVLPPSPKEL
SSSDTVTLTCLIKDFYPPEIDVEWQSNGQPEPESKYHTTAPQLDEDGSYFLYSKLSVDKS
RWQQGDTFTCAVMHEALQNHYTDLSLSHSPGK*

Figure 12

SEQ ID NO 22: Chimeric anti-TNF MAb. Human VK - canine kappa light chain

DIQMTQSPSSLSASVGDRVTITCRASQGIRNYLAWYQQKPGKAPKLLIYA
ASTLQSGVPSRFSGSGSGTDFTLTISSLQPEDVATYYCQRYNRAPYTFGQ
GTKVEIKRNDAQPAVYLFQPSPDQLHTGSASVVCLLNSFYPKDINVKWKV
DGVIQDTGIQESVTEQDKDSTYSLSSTLTMSSTEYLSHELYSCEITHKSL
PSTLIKSFQRSECQRVD*

SEQ ID NO 23: Chimeric anti-TNF MAb. Human VH - canine heavy chain type B constant domain.

EVQLVESGGGLVQPGRSLRLSCAASGFTFDDYAMHWVRQAPGKGLEWVSA
ITWNSGHIDYADSVEGRFTISRDNAKNSLYLQMNSLRAEDTAVYYCAKVS
YLSTASSLDYWGQGTLVTVSSASTTAPSVFPLAPSCGSTSGSTVALACLV
SGYFPEPVTVSWNSGSLTSGVHTFPSVLQSSGLYSLSSMVTVPSSRWPSE
TFTCNVAHPASKTKVDKPVPKRENGRVPRPPDCPKCPAPEMLGGPSVFIF
PPKPKDTLLIARTPEVTCVVVDLDPEDPEVQISWFVDGKQMQTAKTQPRE
EQFNGTYRVVSVLPIGHQDWLKGKQFTCKVNNKALPSPIERTISKARGQA
HQPSVYVLPPSREELSKNTVSLTCLIKDFYPPDIDVEWQSNGQQEPESKY
RTTPPQLDEDGSYFLYSKLSVDKSRWQRGDTFICAVMHEALHNHYTQESL
SHSPGK*

Figure 13

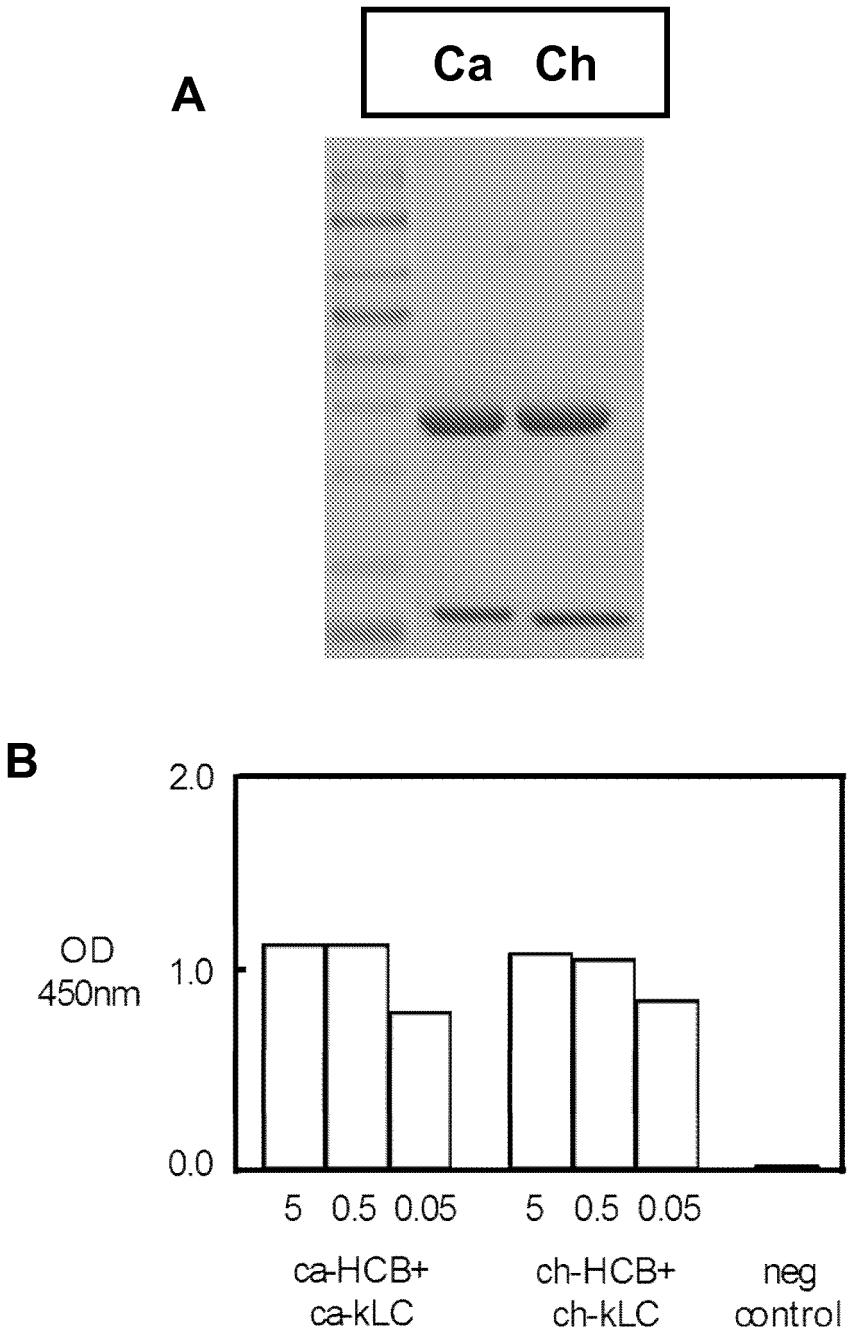

A
Ca Ch
B
2.0
1.0
0.0
OD
450nm
5 0.5 0.05
5 0.5 0.05
ca-HCB+
ca-kLC
ch-HCB+
ch-kLC
neg
control

Figure 14

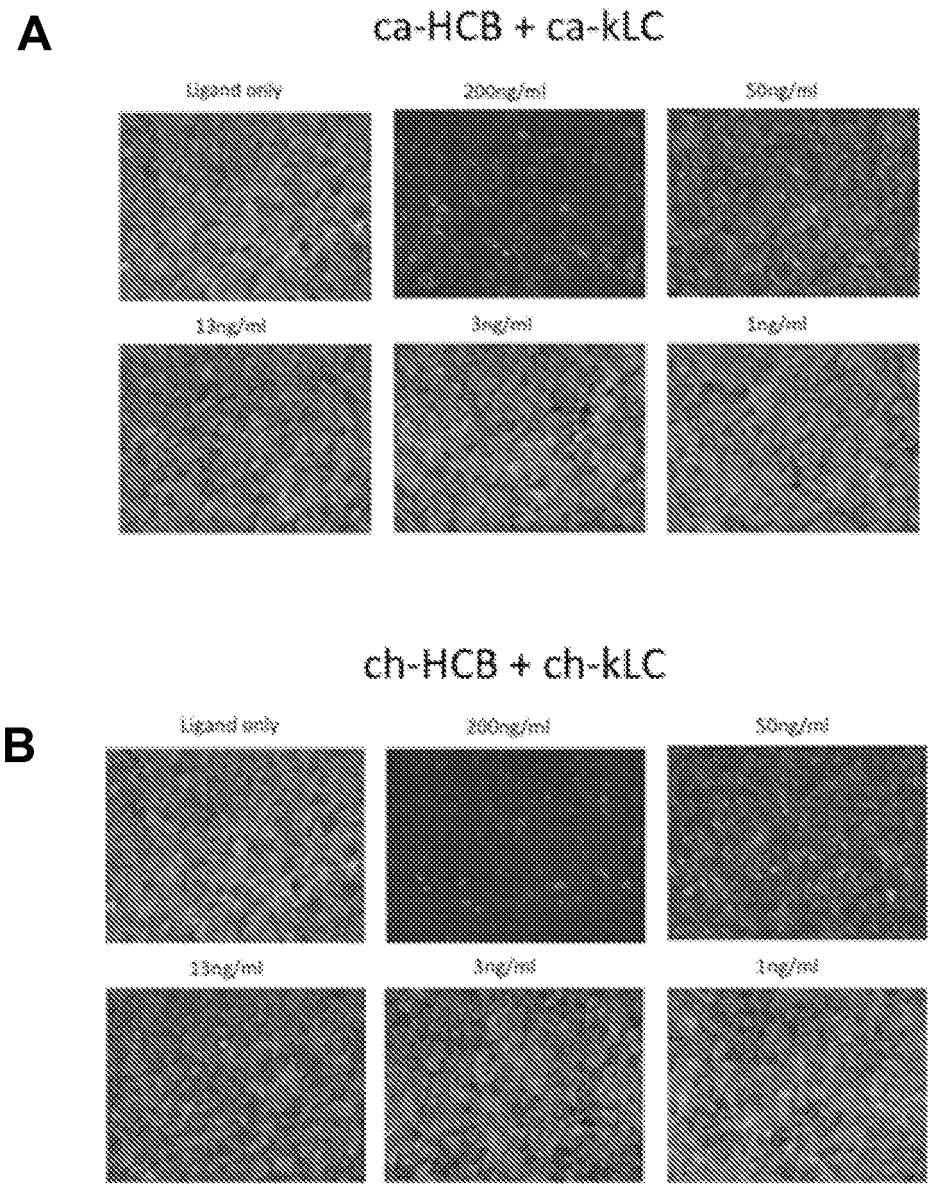

A
ca-HCB + ca-kLC
Ligand only
200ng/ml
50ng/ml
13ng/ml
3ng/ml
1ng/ml
B
ch-HCB + ch-kLC
Ligand only
200ng/ml
50ng/ml
13ng/ml
3ng/ml
1ng/ml

Figure 15

C

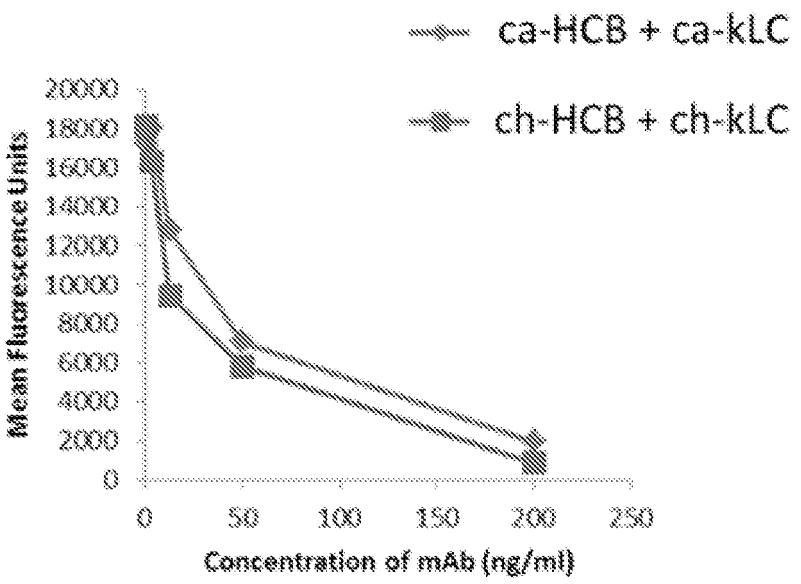

ca-HCB + ca-kLC
ch-HCB + ch-kLC
Mean Fluorescence Units
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0
50
100
150
200
250
Concentration of mAb (ng/ml)

Figure 15

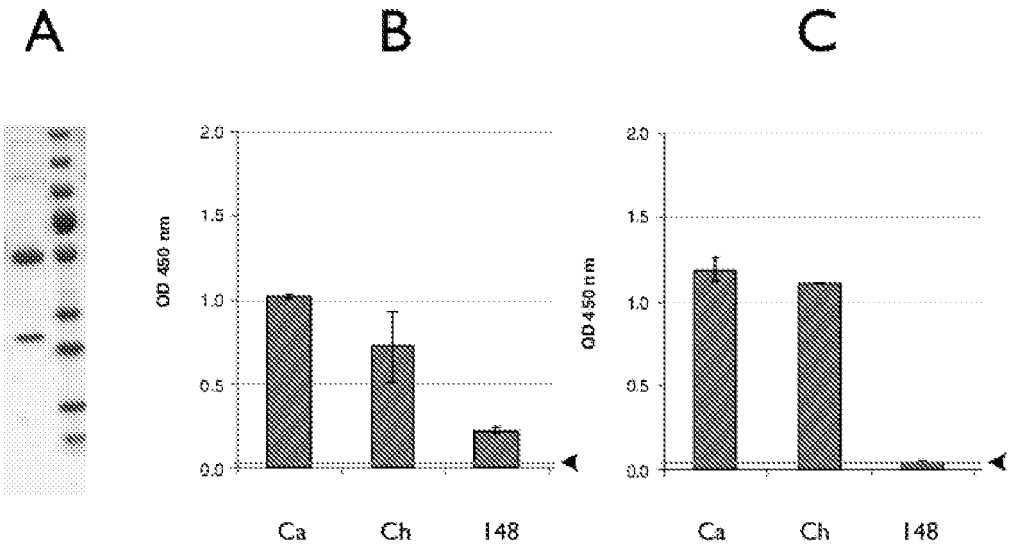

A
B
C
OD 450 nm
2.0
1.5
1.0
0.5
0.0
Ca
Ch
148
OD 450 nm
2.0
1.5
1.0
0.5
0.0
Ca
Ch
148

Figure 16

SEQ ID NO:26 - ca148-HCB heavy chain

MGFGLSWVFLVALLRGVQCEVQLVESGGGVVQPGGSLRLSCAAS
GFIFSSYAMRWVRQAPGKGLEWVAFMSYDGSNKKYADSVKGRFT
ISRDNSKNTLYLQMNSLRAEDTAVYYCARDRGIAAGGNYYYYGMD
VWGQGTSVTVSSASTTAPSVFPLAPSCGSTSGSTVALACLVSGYF
PEPVTVSWNSGSLTSGVHTFPSVLQSSGLYSLSSMVTVPSSRWP
SETFTCNVAHPASKTKVDKPVPKRENGRVPRPPDCPKCPAPEML
GGPSVFIFPPKPKDTLLIARTPEVTCVVVDLDPEDPEVQISWFVDGK
QMQTAKTQPREEQFNGTYRVVSVLPIGHQDWLKGKQFTCKVNNK
ALPSPIERTISKARGQAHQPSVYVLPPSREELSKNTVSLTCLIKDFY
PPDIDVEWQSNGQQEPESKYRTTPPQLDEDGSYFLYSKLSVDKSR
WQRGDTFICAVMHEALHNHYTQESLSHSPGK**

SEQ ID NO:27 - ca148-kLC light chain

MEAPAQLLFLLLLWLPDTTGEIVMTQSPASLSLSPGEKATISCRAS
QSVYSYLAWYQQKPGQAPRLLIYDASNRATGVPSRFSGSGSGTD
FTLTISSLEPEDVAVYYCQQPSNWPPFTFGPGTKVDIKRNDAQPA
VYLFQPSPDQLHTGSASVVCLLNSFYPKDINVKWKVDGVIQDTGI
QESVTEQDKDSTYSLSSTLTMSSTEYLSHELYSCEITHKSLPSTLI
KSFQRSECQRVD**

Figure 17

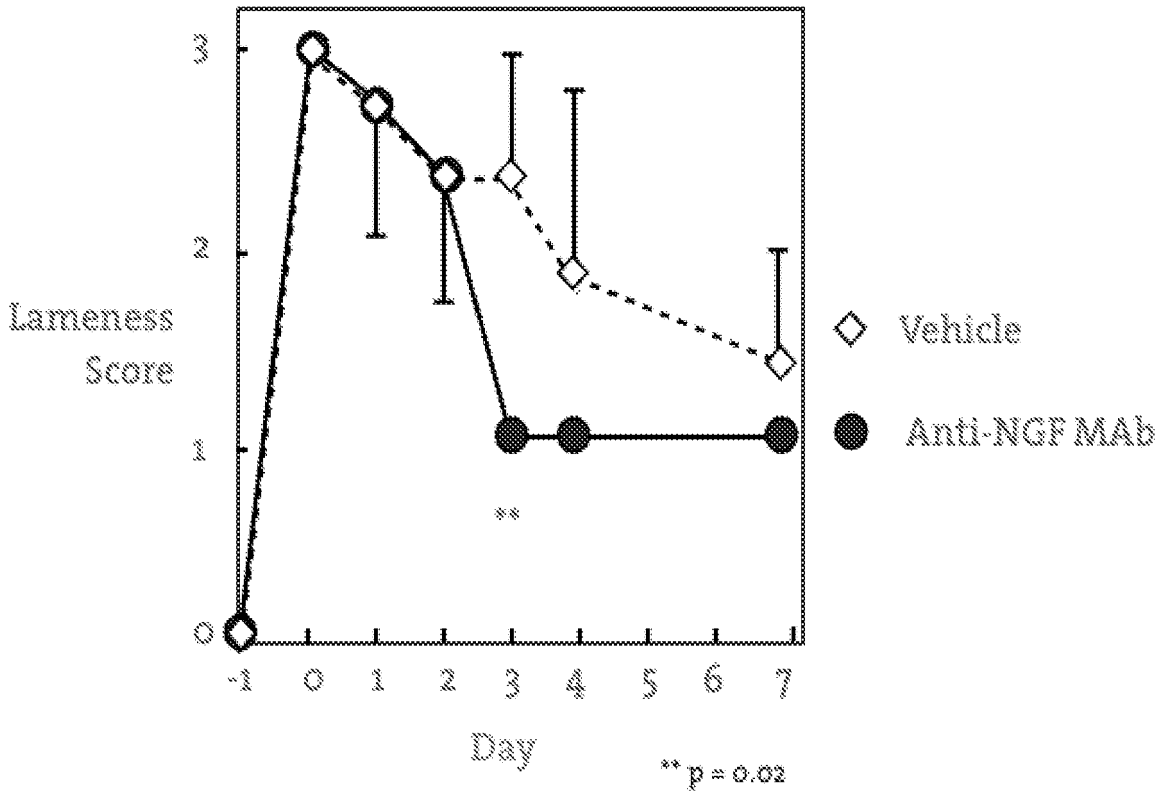

Lameness Score
3
2
1
0
-1
0
1
2
3
4
5
6
7
Day
**
** p = 0.02
Vehicle
Anti-NGF MAb

Figure 18