```
                                        ------CDRL1------
                1          10         20          30abcdef
rat 16C10       DIVMTQSPSSLAVSIGETVTLNC KSSQSLLFSENQKNYLA
hum 16C10       DIVMTQSPLSLPVTPGEPASISC KSSQSLLFSENQKNYLA
rat 4C3         DIVMTQSPSSLAVSVGETVTLNC KSSQSLLFSENQKNYLA
hum 4C3         DIVMTQSPLSLPVTPGEPASISC KSSQSLLFSENQKNYLA
rat 23E12       DIQMTQSPASLSASLGETVTIQC QASEDI-YSG-----LA
rat 30C10       DIVMTQSPSSLAVSPGETVTINC KSSQSLFWSESHMNYLA
hum 30C10       DIVMTQSPLSLPVTPGEPASISC KSSQSLFWSESHMNYLA
rat 12E6        DIQMTQSPSSLSASLGDRVTITC RTSQDI------GNYLS
rat 1D10        DIQMTQSPSFLSASVGERVTLSC KASQNI------NKYLD

                                -CDRL2-
                    40          50          60          70          80
rat 16C10       WYQHKSGQSPKLLVY WTSTRQS GVPDRFMGSGSGTDFTLTISSVQA
hum 16C10       WYLQKPGQSPQLLIY WTSTRQS GVPDRFSGSGSGTDFTLKISRVEA
rat 4C3         WYQHKSGQSPKLLVY WTSTRQS GVPDRFMGSGSGTDFTLTISSVQA
hum 4C3         WYLQKPGQSPQLLIY WTSTRQS GVPDRFSGSGSGTDFTLKISRVEA
rat 23E12       WYHQKPGKSPQLLIL GASRLHD GVPSRFSGSGSGIEYSLKINNMQT
rat 30C10       WYQQKPGQSPKLLIY YASTRQS GVPDRFIGSGSGTDFTLTISGVQA
hum 30C10       WYLQKPGQSPQLLIY YASTRQS GVPDRFSGSGSGTDFTLKISRVEA
rat 12E6        WFQQKPGKSPRLMIY GASNLED GVPSRFSGSRSGSDYSLTISSLES
rat 1D10        WFQQKLGEAPKLLIY NADNLHT GIPSRFSGSGSFSDFILTISSLQP

                        --CDRL3--
                        90          100
rat 16C10       EDLAIYYC QQSYYTPYT FGAGTKLELKR
hum 16C10       EDVGVYYC QQSYYTPYT FGQGTKVEIKR
rat 4C3         EDLAIYYC QQSYYTPYT FGAGTKLELKR
hum 4C3         EDVGVYYC QQSYYTPYT FGQGTKVEIKR
rat 23E12       EDEGIYFC QQGLKYPPT FGGGTKLELKR
rat 30C10       EDLAVYYC HHHYDS-HT FGAGTKLELKR
hum 30C10       EDVGVYYC HHHYDS-HT FGQGTKVEIKR
rat 12E6        EDTAIYYC LQYDKYPNT FGAGTKLELKR
rat 1D10        EDDATYFC LQRESWPYT FGAGTKLELKR
```

Figure 1A

```
                                                ---CDRH1--
          1         10         20         30         40
rat 16C10 QVELRESGPGLVQPSQTLSLTCTVS GFSLPSHSVS WIRQPPGKGLEWMG
hum 16C10 QVQLQESGPGLVKPSETLSLTCTVS GFSLPSHSVS WIRQPPGKGLEWIG
rat 4C3   QVELRESGPGLVQPSQTLSLTCTVS GFSLPSHSVS WIRQPPGKGLEWMG
hum 4C3   QVQLQESGPGLVKPSETLSLTCTVS GFSLPSHSVS WIRQPPGKGLEWIG
rat 23E12 QVQLKESGPGLVQPSQTLSLTCTVF GFSLTNNGVT WVRQPPGKGLEWIA
rat 30C10 EVQLVESGGGLVQPGRSQKLSCVVS GFTFNNYWMT WIRQAPGKGLEWVA
hum 30C10 QVQLVESGGGVVQPGRSLRLSCAAS GFTFNNYWMT WVRQAPGKGLEWVA
rat 12E6  EVQLEESGGGLVQPGRSLKLSCAAS GFTFRDYYMV WVRQAPKKGLEWVA
rat 1D10  QVQLKESGPGLVQPSQTLSLTCTVS GFSLTNYYVH WVRQPPGKGLEWMG

          ------CDRH2------
          50  a      60         70         80  abc      90
rat 16C10  IIW-NNGGTDYNSAFKS RLTISRDTSKSQVFLKMNSLQTEDTAMYFCAR
hum 16C10  IIW-NQGGTDYNSAFKS RVTISVDTSKNQFSLKLSSVTAADTAVYYCAR
rat 4C3    IIW-NNGGTDYNSAFKS RLTISRDTSKSQVFLKMNSLQTEDTAMYFCAR
hum 4C3    IIW-NQGGTDYNSAFKS RVTISVDTSKNQFSLKLSSVTAADTAVYYCAR
rat 23E12  EVS-SGGSTDYNSALKS RLSISRDTSKSQVFLRMNSLQTEDTAIYFCAR
rat 30C10  SVSNTGSSTYYPASVKG RFTISRDNAKSTLYLQMNSLRSEDTATYYCTR
hum 30C10  SVSNTGSSTYYPASVKG RFTISRDNSKNTLYLQMNSLRAEDTAVYYCAR
rat 12E6   SISYEGSSIYYGESVKG RFTISRDNAKSTLYLQMNSLRSEDTATYYCAR
rat 1D10   GVW-NDGDTSYNSVLRS RLSITRDTSKSQVLLKMSSLQTEDTATYYCAR

          -----CDRH3------
                abcdefgh        110
rat 16C10  NMYITDYYYENYFMDA WGQGASVTVSS
hum 16C10  NAYITDYYYENYFMDA WGQGTLVTVSS
rat 4C3    NMYITDYYYENYFMDA WGQGASVTVSS
hum 4C3    NAYITDYYYENYFMDA WGQGTLVTVSS
rat 23E12  QEVFTGL------LDY WGQGVMVTVSS
rat 30C10  EGAYY--------LDY WGQGVMVTVSS
hum 30C10  EGAYY--------LDY WGQGTLVTVSS
rat 12E6   HGFNP--------FDY WGRGVMVTVSS
rat 1D10   EGREGFVGYYV--MDA WGPGASVTVSS
```

Figure 1B

------CDRL1------

H_2N-DIVMTQSPLSLPVTPGEPASISC KSSQSLLFSENQKNYLA WYLQKPGQSPQLLIY

-CDRL2- --CDRL3--

WTSTRQS GVPDRFSGSGSGTDFTLKISRVEAEDVGVYYC QQSYYTPYT

FGQGTKVEIKR

human kappa constant light domain

TVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQ

DSKDSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC-COOH

Figure 2A

---CDRH1--

H_2N-QVQLQESGPGLVKPSETLSLTCTVS GFSLPSHSVS WIRQPPGKGLEWIG

-----CDRH2------

IIWNQGGTDYNSAFKS RVTISVDTSKNQFSLKLSSVTAADTAVYYCAR

------CDRH3-----

NAYITDYYYENYFMDA WGQGTLVTVSS

human IgG1 Fc (CH1-hinge-CH2-CH3)

ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQ
SSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDKTHTCPPCPAPE
LLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKP
REEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVY
TLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY
SKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK-COOH

Figure 2B

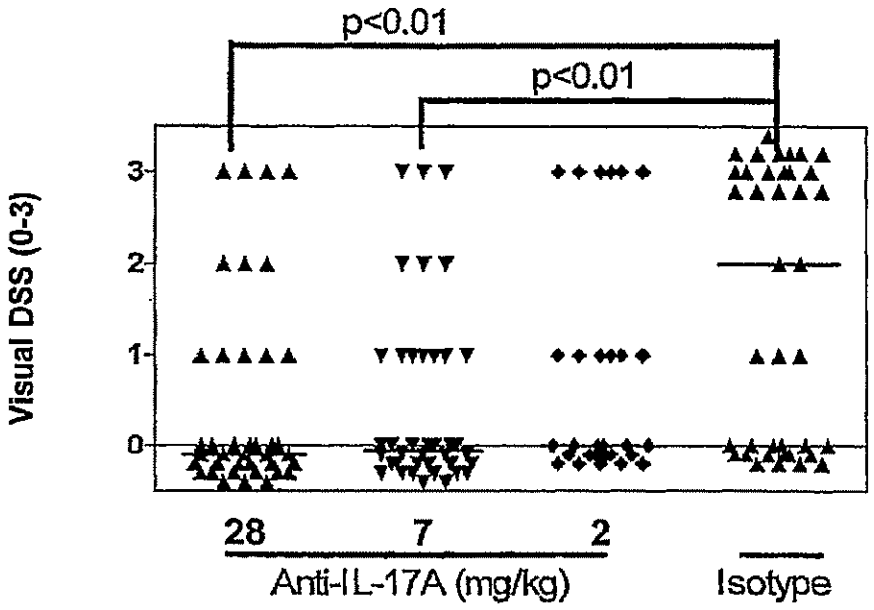


Figure 3A

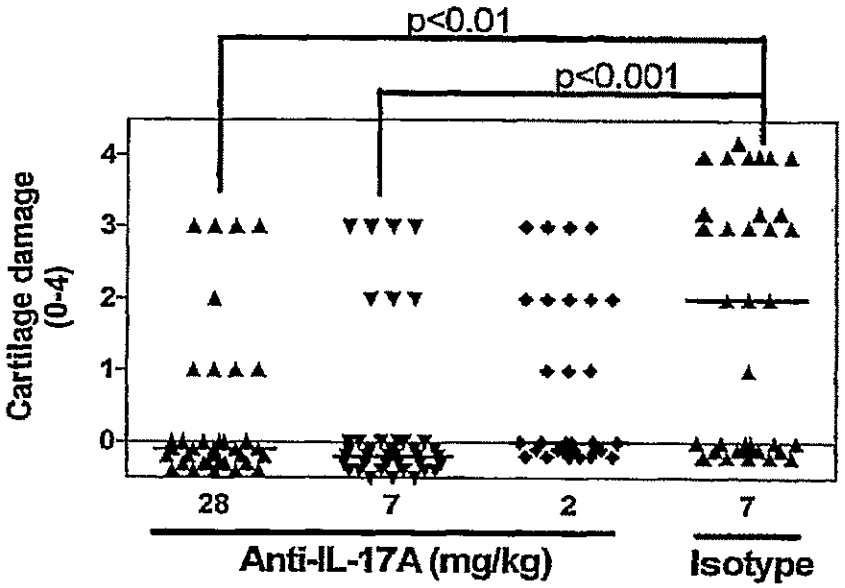

p<0.01
p<0.001
Cartilage damage (0-4)
4
3
2
1
0
28
7
2
7
Anti-IL-17A (mg/kg)
Isotype

Figure 3B

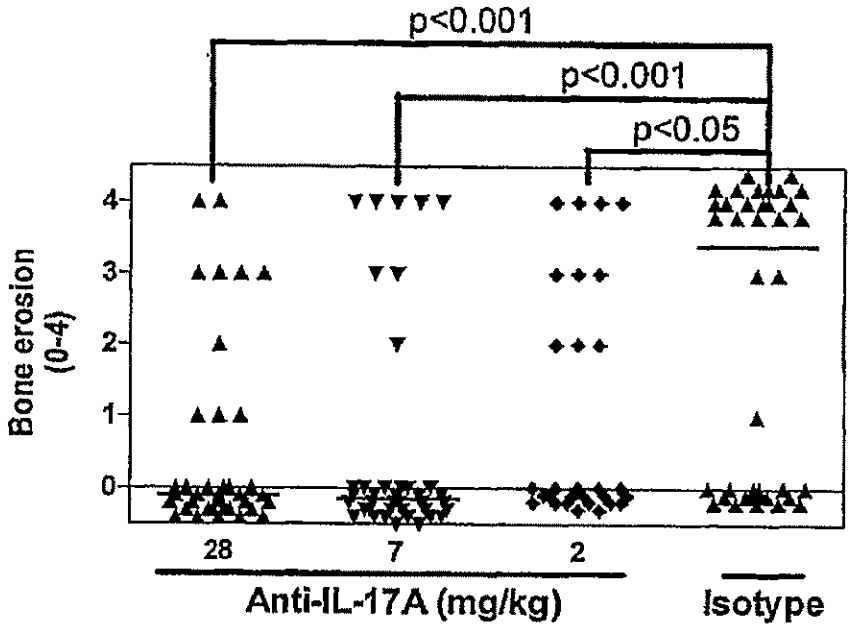

p<0.001
p<0.001
p<0.05
Bone erosion (0-4)
4
3
2
1
0
28
7
2
Anti-IL-17A (mg/kg)
Isotype

Figure 3C

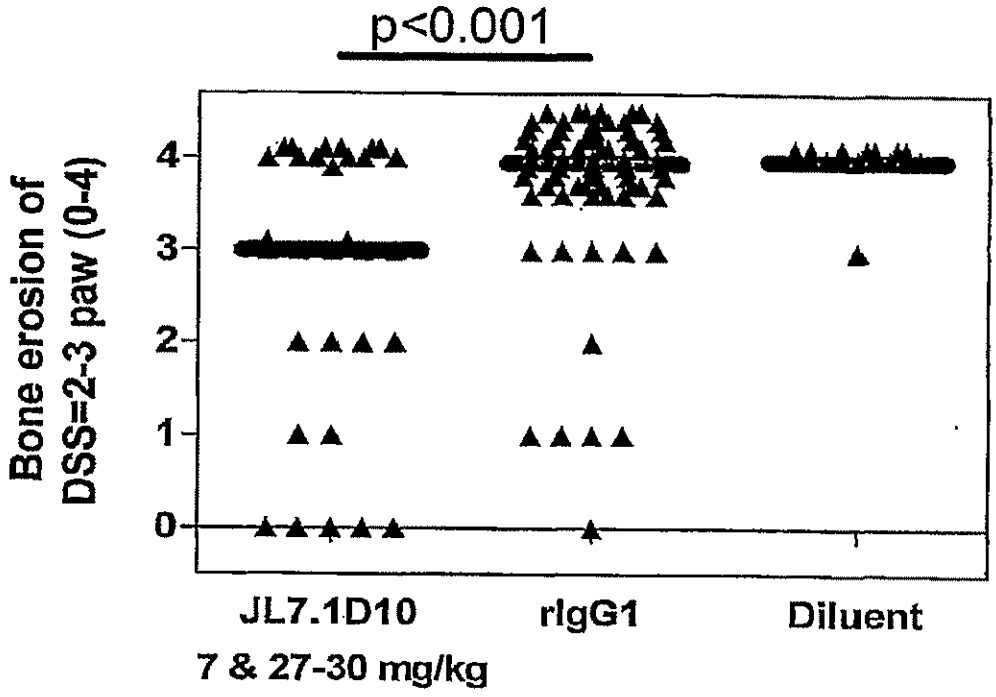

p<0.001
Bone erosion of
DSS=2-3 paw (0-4)
4
3
2
1
0
JL7.1D10
rIgG1
Diluent
7 & 27-30 mg/kg

Figure 3D

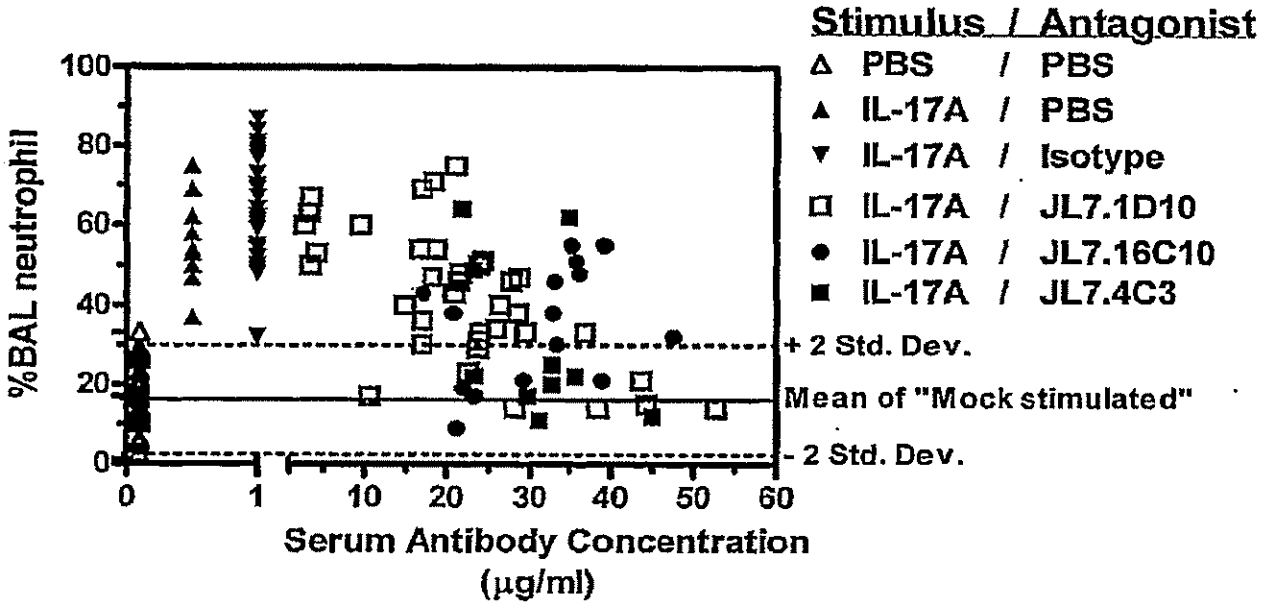

Stimulus / Antagonist
PBS / PBS
IL-17A / PBS
IL-17A / Isotype
IL-17A / JL7.1D10
IL-17A / JL7.16C10
IL-17A / JL7.4C3
+ 2 Std. Dev.
Mean of "Mock stimulated"
- 2 Std. Dev.
%BAL neutrophil
100
80
60
40
20
0
0
1
10
20
30
40
50
60
Serum Antibody Concentration
(µg/ml)

Figure 4

```
1    ATG GCC CCC GTG CAG CTG CTG GGC CTG CTG GTG CTG TTC CTG CCC GCC ATG
52   AGA TGC GAC ATC GTG ATG ACC CAG AGC CCC CTG AGC CTG CCC GTG ACC CCA
103  GGC GAG CCC GCC AGC ATC AGC TGC AAG AGC AGC CAG AGC CTG CTG TTC AGC
154  GAG AAC CAG AAG AAC TAC CTG GCC TGG TAT CTG CAG AAG CCC GGC CAG TCC
205  CCC CAG CTG CTG ATC TAC TGG ACC AGC ACC AGG CAG AGC GGC GTG CCC GAC
256  AGG TTC AGC GGC AGC GGC TCC GGC ACC GAC TTC ACC CTG AAG ATC AGC AGG
307  GTG GAG GCC GAG GAC GTG GGC GTG TAC TAC TGC CAG CAG AGC TAC TAC ACC
358  CCC TAC ACC TTC GGC CAG GGC ACC AAG GTG GAG ATC AAG CGT ACG GTG GCT
409  GCC CCC AGC GTG TTC ATC TTC CCC CCC AGC GAC GAG CAG CTG AAG AGC GGC
460  ACC GCC AGC GTG GTG TGC CTG CTG AAC AAC TTC TAC CCC CGG GAG GCC AAG
511  GTG CAG TGG AAG GTG GAC AAC GCC CTG CAG AGC GGC AAC AGC CAG GAA AGC
562  GTC ACC GAG CAG GAC AGC AAG GAC TCC ACC TAC AGC CTG AGC AGC ACC CTG
613  ACC CTG AGC AAG GCC GAC TAC GAG AAG CAC AAG GTG TAC GCC TGC GAG GTG
664  ACC CAC CAG GGC CTG TCC AGC CCC GTG ACC AAG AGC TTC AAC AGG GGC GAG
715  TGC TAG
```

Figure 5A

```
1    ATG GCC GTG CTG GGC CTG CTG TTC TGC CTG GTG ACC TTC CCC AGC TGC GTG
52   CTG TCC CAG GTG CAG CTG CAG GAA AGC GGC CCA GGC CTG GTG AAG CCC AGC
103  GAG ACC CTG AGC CTG ACC TGC ACC GTG AGC GGC TTC AGC CTG CCC AGC CAC
154  AGC GTG AGC TGG ATC AGG CAG CCC CCA GGC AAG GGC CTG GAA TGG ATC GGC
205  ATC ATC TGG AAC CAG GGC GGC ACC GAC TAC AAC AGC GCC TTC AAG AGC AGG
256  GTG ACC ATC AGC GTG GAC ACC AGC AAG AAC CAG TTC AGC CTG AAG CTG TCC
307  AGC GTG ACA GCC GCC GAC ACC GCC GTG TAC TAC TGC GCC AGG AAC GCC TAC
358  ATC ACC GAC TAC TAC TAC GAG AAC TAC TTC ATG GAC GCC TGG GGC CAG GGC
409  ACC CTG GTG ACC GTG AGC AGC GCT AGC ACC AAG GGC CCA AGC GTG TTC CCC
460  CTG GCC CCC AGC AGC AAG AGC ACC TCC GGC GGC ACA GCC GCC CTG GGC TGT
511  CTG GTG AAG GAC TAC TTC CCC GAG CCC GTG ACC GTG TCC TGG AAC AGC GGA
562  GCC CTG ACC AGC GGC GTG CAC ACC TTC CCC GCC GTG CTG CAG AGC AGC GGC
613  CTG TAC AGC CTG AGC AGC GTG GTG ACA GTG CCC AGC AGC AGC CTG GGC ACC
664  CAG ACC TAC ATC TGC AAC GTG AAC CAC AAG CCC AGC AAC ACC AAG GTG GAC
715  AAG AAG GTG GAG CCC AAG AGC TGC GAC AAG ACC CAC ACC TGC CCC CCC TGC
766  CCT GCC CCA GAG CTG CTG GGC GGA CCC AGC GTG TTC CTG TTC CCC CCC AAG
817  CCC AAG GAC ACC CTG ATG ATC AGC AGG ACC CCC GAG GTG ACC TGC GTG GTG
868  GTG GAC GTG AGC CAC GAG GAC CCA GAG GTG AAG TTC AAC TGG TAC GTG GAC
919  GGC GTG GAG GTG CAC AAC GCC AAG ACC AAG CCC AGA GAG GAA CAG TAC AAC
970  AGC ACC TAC AGG GTG GTG TCC GTG CTG ACC GTG CTG CAC CAG GAC TGG CTG
1021 AAC GGC AAG GAG TAC AAG TGC AAG GTC TCC AAC AAG GCC CTG CCA GCC CCC
1072 ATC GAG AAA ACC ATC AGC AAG GCC AAG GGC CAG CCA CGG GAG CCC CAG GTG
1123 TAC ACC CTG CCC CCC AGC CGG GAC GAG CTG ACC AAG AAC CAG GTG TCC CTG
1174 ACC TGC CTG GTG AAG GGC TTC TAC CCC AGC GAC ATC GCC GTG GAG TGG GAG
1225 AGC AAC GGC CAG CCC GAG AAC AAC TAC AAG ACC ACC CCC CCA GTG CTG GAC
1276 AGC GAC GGC AGC TTC TTC CTG TAC AGC AAG CTG ACC GTG GAC AAG AGC AGG
1327 TGG CAG CAG GGC AAC GTG TTC AGC TGC AGC GTG ATG CAC GAG GCC CTG CAC
1378 AAC CAC TAC ACC CAG AAG AGC CTG AGC CTG TCC CCC GGC AAG TGA
```

Figure 5B