Figure 1

Sequence Description	Sequence
Ab-A and Ab-1 CDR-L1	QSSQSVYDNNWLA (SEQ ID NO: 54)
Ab-A and Ab-1 CDR-L2	DASDLAS (SEQ ID NO: 55)
Ab-A and Ab-1 CDR-L3	QGAYNDVIYA (SEQ ID NO: 56)
Ab-A and Ab-1 CDR-H1	SYWMN (SEQ ID NO: 51)
Ab-A and Ab-1 CDR-H2	TIDSGGRTDYASWAKG (SEQ ID NO: 52)
Ab-A and Ab-1 CDR-H3	NWNL (SEQ ID NO: 53)
Ab-A light chain	SEQ ID NO: 23
Ab-A heavy chain	SEQ ID NO: 27
Ab-1 light variable region (with signal sequence)	SEQ ID NO: 75
Ab-1 heavy variable region (with signal sequence)	SEQ ID NO: 77
Ab-B CDR-L1	SASSSVSFVD (SEQ ID NO: 60)
Ab-B CDR-L2	RTSNLGF (SEQ ID NO: 61)
Ab-B CDR-L3	QQRSTYPPT (SEQ ID NO: 62)
Ab-B CDR-H1	TSGMGVG (SEQ ID NO: 57)
Ab-B CDR-H2	HIWWDDVKRYNPVLKS (SEQ ID NO: 58)
Ab-B CDR-H3	EDFDYDEEYYAMDY (SEQ ID NO: 59)
Ab-B light chain	SEQ ID NO: 31
Ab-B heavy chain	SEQ ID NO: 35
Ab-C CDR-L1	KASQSVDYDGDSYMN (SEQ ID NO: 48)
Ab-C CDR-L2	AASNLES (SEQ ID NO: 49)
Ab-C CDR-L3	QQSNEDPWT (SEQ ID NO: 50)
Ab-C CDR-H1	DCYMN (SEQ ID NO: 45)

Sequence Description	Sequence
Ab-C CDR-H2	DINPFNGGTTYNQKFKG (SEQ ID NO: 46)
Ab-C CDR-H3	SHYYFDGRVPWDAMDY (SEQ ID NO: 47)
Ab-C light chain	SEQ ID NO: 15
Ab-C heavy chain	SEQ ID NO: 19
Ab-D CDR-L1	QASQGTSINLN (SEQ ID NO: 42)
Ab-D CDR-L2	GSSNLED (SEQ ID NO: 43)
Ab-D CDR-L3	LQHSYLPYT (SEQ ID NO: 44)
Ab-D CDR-H1	DHYMS (SEQ ID NO: 39)
Ab-D CDR-H2	DINPYSGETTYNQKFKG (SEQ ID NO: 40)
Ab-D CDR-H3	DDYDASPFAY (SEQ ID NO: 41)
Ab-D light chain	SEQ ID NO: 7
Ab-D heavy chain	SEQ ID NO: 11
Ab-2 CDR-L1	RASSSVYYYMH (SEQ ID NO: 275)
Ab-2 CDR-L2	ATSNLAS (SEQ ID NO: 276)
Ab-2 CDR-L3	QQWSSDPLT (SEQ ID NO: 277)
Ab-2 CDR-H1	DYFIH (SEQ ID NO: 287)
Ab-2 CDR-H2	RLDPEDGESDYAPKFQD (SEQ ID NO: 288)
Ab-2 CDR-H3	EDYDGTYTFFPY (SEQ ID NO: 289)
Ab-2 light chain	SEQ ID NO: 117
Ab-2 heavy chain	SEQ ID NO: 121
Ab-3 and Ab-15 CDR-L1	SVSSTISSNHLH (SEQ ID NO: 278)
Ab-3 and Ab-15 CDR-L2	GTSNLAS (SEQ ID NO: 279)
Ab-3 and Ab-15 CDR-L3	QQWSSYPLT (SEQ ID NO: 280)
Ab-3 and Ab-15 CDR-H1	DFYLH (SEQ ID NO: 290)

Sequence Description	Sequence
Ab-3 and Ab-15 CDR-H2	RIDPENGDTLYDPKFQD (SEQ ID NO: 291)
Ab-3 and Ab-15 CDR-H3	EADYFHDGTSYWYFDV (SEQ ID NO: 292)
Ab-3 light chain	SEQ ID NO: 125
Ab-3 heavy chain	SEQ ID NO: 129
Ab-15 light variable region	SEQ ID NO: 384
Ab-15 heavy variable region	SEQ ID NO: 386
Ab-15 light chain	SEQ ID NO: 221
AB-15 heavy chain	SEQ ID NO: 225
Ab-4 and Ab-5 CDR-L1	RASQDISNYLN (SEQ ID NO: 78)
Ab-4 and Ab-5 CDR-L2	YTSRLLS (SEQ ID NO: 79)
Ab-4 and Ab-5 CDR-L3	QQGDTLPYT (SEQ ID NO: 80)
Ab-4 and Ab-5 CDR-H1	DYNMH (SEQ ID NO: 245)
Ab-4 and Ab-5 CDR-H2	EINPNSGGAGYNQKFKG (SEQ ID NO: 246)
Ab-4 and Ab-5 CDR-H3	LGYDDIYDDWYFDV (SEQ ID NO: 247)
Ab-4 light chain	SEQ ID NO: 133
Ab-4 heavy chain	SEQ ID NO: 137
Ab-5 light variable region	SEQ ID NO: 376
Ab-5 heavy variable region	SEQ ID NO: 378
Ab-5 light chain	SEQ ID NO: 141
Ab-5 heavy chain	SEQ ID NO: 145
Ab-6 CDR-L1	RASQDISNYLN (SEQ ID NO: 81)
Ab-6 CDR-L2	YTSRLHS (SEQ ID NO: 99)
Ab-6 CDR-L3	QQGDTLPYT (SEQ ID NO: 100)
Ab-6 CDR-H1	DYNMH (SEQ ID NO: 248)

Sequence Description	Sequence
Ab-6 CDR-H2	EINPNSGGSGYNQKFKG (SEQ ID NO: 249)
Ab-6 CDR-H3	LVYDGSYEDWYFDV (SEQ ID NO: 250)
Ab-6 light chain	SEQ ID NO: 149
Ab-6 heavy chain	SEQ ID NO: 153
Ab-7 CDR-L1	RASQVITNYLY (SEQ ID NO: 101)
Ab-7 CDR-L2	YTSRLHS (SEQ ID NO: 102)
Ab-7 CDR-L3	QQGDTLPYT (SEQ ID NO: 103)
Ab-7 CDR-H1	DYNMH (SEQ ID NO: 251)
Ab-7 CDR-H2	EINPNSGGAGYNQQFKG (SEQ ID NO: 252)
Ab-7 CDR-H3	LGYVGNYEDWYFDV (SEQ ID NO: 253)
Ab-7 light chain	SEQ ID NO: 157
Ab-7 heavy chain	SEQ ID NO: 161
Ab-8 CDR-L1	RASQDISNYLN (SEQ ID NO: 104)
Ab-8 CDR-L2	YTSRLLS (SEQ ID NO: 105)
Ab-8 CDR-L3	QQGDTLPYT (SEQ ID NO: 106)
Ab-8 CDR-H1	DYNMH (SEQ ID NO: 254)
Ab-8 CDR-H2	EINPNSGGAGYNQKFKG (SEQ ID NO: 255)
Ab-8 CDR-H3	LGYDDIYDDWYFDV (SEQ ID NO: 256)
Ab-8 light chain	SEQ ID NO: 165
Ab-8 heavy chain	SEQ ID NO: 169
Ab-9 CDR-L1	RASQDISNYLN (SEQ ID NO: 107)
Ab-9 CDR-L2	YTSRLFS (SEQ ID NO: 108)
Ab-9 CDR-L3	QQGDTLPYT (SEQ ID NO: 109)
Ab-9 CDR-H1	DYNMH (SEQ ID NO: 257)

Sequence Description	Sequence
Ab-9 CDR-H2	EINPNSGGAGYNQKFKG (SEQ ID NO: 258)
Ab-9 CDR-H3	LGYDDIYDDWYFDV (SEQ ID NO: 259)
Ab-9 light chain	SEQ ID NO: 173
Ab-9 heavy chain	SEQ ID NO: 177
Ab-10 CDR-L1	RASQDISNYLN (SEQ ID NO: 110)
Ab-10 CDR-L2	YTSRLLS (SEQ ID NO: 111)
Ab-10 CDR-L3	QQGDTLPYT (SEQ ID NO: 112)
Ab-10 CDR-H1	DYNMH (SEQ ID NO: 260)
Ab-10 CDR-H2	EINPNSGGAGYNQKFKG (SEQ ID NO: 261)
Ab-10 CDR-H3	LGYDDIYDDWYFDV (SEQ ID NO: 262)
Ab-10 light chain	SEQ ID NO: 181
Ab-10 heavy chain	SEQ ID NO: 185
Ab-11 and Ab-16 CDR-L1	RASSSISYIH (SEQ ID NO: 281)
Ab-11 and Ab-16 CDR-L2	ATSNLAS (SEQ ID NO: 282)
Ab-11 and Ab-16 CDR-L3	QQWSSDPLT (SEQ ID NO: 283)
Ab-11 and Ab-16 CDR-H1	DYYIH (SEQ ID NO: 293)
Ab-11 and Ab-16 CDR-H2	RVDPDNGETEFAPKFPG (SEQ ID NO: 294)
Ab-11 and Ab-16 CDR-H3	EDYDGTYTWFPY (SEQ ID NO: 295)
Ab-11 light chain	SEQ ID NO: 189
Ab-11 heavy chain	SEQ ID NO: 193
Ab-16 light variable region	SEQ ID NO: 388
Ab-16 heavy variable region	SEQ ID NO: 390
Ab-16 light chain	SEQ ID NO: 229
Ab-16 heavy chain	SEQ ID NO: 233

Sequence Description	Sequence
Ab-12 CDR-L1	RASQDISNYLN (SEQ ID NO: 113)
Ab-12 CDR-L2	YTSTLQS (SEQ ID NO: 114)
Ab-12 CDR-L3	QQGDTLPYT(SEQ ID NO: 115)
Ab-12 CDR-H1	DYNMH (SEQ ID NO: 263)
Ab-12 CDR-H2	EINPNSGGSGYNQKFKG (SEQ ID NO: 264)
Ab-12 CDR-H3	LGYYGNYEDWYFDV (SEQ ID NO: 265)
Ab-12 light chain	SEQ ID NO: 197
Ab-12 heavy chain	SEQ ID NO: 201
Ab-13 and Ab-14 CDR-L1	RASSSVTSSYLN (SEQ ID NO: 284)
Ab-13 and Ab-14 CDR-L2	STSNLAS (SEQ ID NO: 285)
Ab-13 and Ab-14 CDR-L3	QQYDFFPST (SEQ ID NO: 286)
Ab-13 and Ab-14 CDR-H1	DYYMN (SEQ ID NO: 296)
Ab-13 and Ab-14 CDR-H2	DINPYNDDTTYNHKFKG (SEQ ID NO: 297)
Ab-13 and Ab-14 CDR-H3	ETAVITTNAMD (SEQ ID NO: 298)
Ab-13 light chain	SEQ ID NO: 205
Ab-13 heavy chain	SEQ ID NO: 209
Ab-14 light variable region	SEQ ID NO: 380
Ab-14 heavy variable region	SEQ ID NO: 382
Ab-14 light chain	SEQ ID NO: 213
Ab-14 heavy chain	SEQ ID NO: 217
Ab-17 and Ab-18 CDR-L1	SVSSSISSSNLH (SEQ ID NO: 116)
Ab-17 and Ab-18 CDR-L2	GTSNLAS (SEQ ID NO: 237)
Ab-17 and Ab-18 CDR-L3	QQWTTTYT (SEQ ID NO: 238)
Ab-17 and Ab-18 CDR-H1	DYYIH (SEQ ID NO: 266)

Sequence Description	Sequence
Ab-17 and Ab-18 CDR-H2	RIDPDNGESTYVPKFQG (SEQ ID NO: 267)
Ab-17 and Ab-18 CDR-H3	EGLDYGDYYAVDY (SEQ ID NO: 268)
Ab-17 light variable region (with signal sequence)	SEQ ID NO: 299
Ab-17 heavy variable region (with signal sequence)	SEQ ID NO: 301
Ab-18 light variable region (with signal sequence)	SEQ ID NO: 303
Ab-18 heavy variable region (with signal sequence)	SEQ ID NO: 305
Ab-19, Ab-20 and Ab-23 CDR-L1	RASQDISSYLN (SEQ ID NO: 239)
Ab-19, Ab-20 and Ab-23 CDR-L2	STSRLNS (SEQ ID NO: 240)
Ab-19, Ab-20 and Ab-23 CDR-L3	QQDIKHPT (SEQ ID NO: 241)
Ab-19, Ab-20 and Ab-23 CDR-H1	DYIMH (SEQ ID NO: 269)
Ab-19, Ab-20 and Ab-23 CDR-H2	YINPYNDDTEYNEKFKG (SEQ ID NO: 270)
Ab-19, Ab-20 and Ab-23 CDR-H3	SIYYYDAPFAY (SEQ ID NO: 271)
Ab-19 light variable region	SEQ ID NO: 314
Ab-19 heavy variable region	SEQ ID NO: 327
Ab-19 light chain (with signal sequence)	SEQ ID NO: 307
Ab-19 heavy chain (with signal sequence)	SEQ ID NO: 309
Ab-20 light variable region (with signal sequence)	SEQ ID NO: 311
Ab-20 heavy variable region (with signal sequence)	SEQ ID NO: 313
Ab-23 light variable region	SEQ ID NO: 364
Ab-23 heavy variable region	SEQ ID NO: 366
Ab-23 light chain	SEQ ID NO: 341

Sequence Description	Sequence
Ab-23 heavy chain	SEQ ID NO: 345
Ab-21 and Ab-22 CDR-L1	KASQDVFTAVA (SEQ ID NO: 242)
Ab-21 and Ab-22 CDR-L2	WASTRHT (SEQ ID NO: 243)
Ab-21 and Ab-22 CDR-L3	QQYSSYPLT (SEQ ID NO: 244)
Ab-21 and Ab-22 CDR-H1	DYYMH (SEQ ID NO: 272)
Ab-21 and Ab-22 CDR-H2	RIDPENGDIIYDPKFQG (SEQ ID NO: 273)
Ab-21 and Ab-22 CDR-H3	DAGDPAWFTY (SEQ ID NO: 274)
Ab-21 light variable region (with signal sequence)	SEQ ID NO: 315
Ab-21 heavy variable region (with signal sequence)	SEQ ID NO: 317
Ab-22 light variable region	SEQ ID NO: 368
Ab-22 heavy variable region	SEQ ID NO: 370
Ab-24 CDR-L1	KASQSVDYDGTSYMN (SEQ ID NO: 351)
Ab-24 CDR-L2	AASNLES (SEQ ID NO: 352)
Ab-24 CDR-L3	QQSNEDPFT (SEQ ID NO: 353)
Ab-24 CDR-H1	TYWMN (SEQ ID NO: 358)
Ab-24 CDR-H2	MIHPSASEIRLDQKFKD (SEQ ID NO: 359)
Ab-24 CDR-H3	SGEWGSMDY (SEQ ID NO: 360)
Ab-24 light chain	SEQ ID NO: 350
Ab-24 heavy chain	SEQ ID NO: 357
CDR SEQ ID NO: 20 of WO 2008/115732	GYTFTDYFLN (SEQ ID NO: 416)
CDR SEQ ID NO: 21 of WO 2008/115732	TIYPYHDGTTYSQKFKG (SEQ ID NO: 417)
CDR SEQ ID NO: 22 of WO 2008/115732	EEEDGQFDY (SEQ ID NO: 418)
CDR SEQ ID NO: 23 of WO 2008/115732	SASQGIQWYLN (SEQ ID NO: 419)

Sequence Description	Sequence
CDR SEQ ID NO: 24 of WO 2008/115732	YTSSLHS (SEQ ID NO: 420)
CDR SEQ ID NO: 25 of WO 2008/115732	QQHSKLPRT (SEQ ID NO: 421)
CDR SEQ ID NO: 26 of WO 2008/115732	GFPIKDTFQH (SEQ ID NO: 422)
CDR SEQ ID NO: 27 of WO 2008/115732	WSDPEIGDTEYASKFQG (SEQ ID NO: 423)
CDR SEQ ID NO: 28 of WO 2008/115732	GDTTYKFDF (SEQ ID NO: 424)
CDR SEQ ID NO: 29 of WO 2008/115732	KASQDVHTAVA (SEQ ID NO: 425)
CDR SEQ ID NO: 30 of WO 2008/115732	WASTRWT (SEQ ID NO: 426)
CDR SEQ ID NO: 31 of WO 2008/115732	QQYSDYPWT (SEQ ID NO: 427)
CDR SEQ ID NO: 32 of WO 2008/115732	DFEIKDYYIH (SEQ ID NO: 428)
CDR SEQ ID NO: 33 of WO 2008/115732	QIDAEDGETEYAPRFQG (SEQ ID NO: 429)
CDR SEQ ID NO: 34 of WO 2008/115732	QIDAEDGETEYAPRFQG (SEQ ID NO: 430)
CDR SEQ ID NO: 35 of WO 2008/115732	QIDAEDGETEYAPRFQG (SEQ ID NO: 431)
CDR SEQ ID NO: 36 of WO 2008/115732	STSELAS (SEQ ID NO: 432)
CDR SEQ ID NO: 37 of WO 2008/115732	QQLSHLPLT (SEQ ID NO: 433)
CDR SEQ ID NO: 4 of WO 2009/047356	GFTFRSHWLS (SEQ ID NO: 443)
CDR SEQ ID NO: 15 of WO 2009/047356	WVSNINYDGSSTYYADSVKG (SEQ ID NO: 454)
CDR SEQ ID NO: 26 of WO 2009/047356	DTYLHFDY (SEQ ID NO: 465)
CDR SEQ ID NO: 37 of WO 2009/047356	SGDNIGSFYVH (SEQ ID NO: 476)
CDR SEQ ID NO: 48 of WO 2009/047356	LMIYDVNNRPS (SEQ ID NO: 487)
CDR SEQ ID NO: 59 of WO 2009/047356	QSYAGSYLSE (SEQ ID NO: 498)
CDR SEQ ID NO: 135 of WO 2010/130830	DNVMG (SEQ ID NO: 745)
CDR SEQ ID NO: 136 of WO 2010/130830	IYNMD (SEQ ID NO: 746)
CDR SEQ ID NO: 137 of WO 2010/130830	RFDMS (SEQ ID NO: 747)
CDR SEQ ID NO: 138 of WO 2010/130830	SYFMG (SEQ ID NO: 748)

Sequence Description	Sequence
CDR SEQ ID NO: 139 of WO 2010/130830	IYNMD (SEQ ID NO: 749)
CDR SEQ ID NO: 140 of WO 2010/130830	RYVTG (SEQ ID NO: 750)
CDR SEQ ID NO: 141 of WO 2010/130830	SFVIG (SEQ ID NO: 751)
CDR SEQ ID NO: 142 of WO 2010/130830	QYTIT (SEQ ID NO: 752)
CDR SEQ ID NO: 143 of WO 2010/130830	IYNMD (SEQ ID NO: 753)
CDR SEQ ID NO: 153 of WO 2010/130830	WYRQAPGKQRELVA (SEQ ID NO: 763)
CDR SEQ ID NO: 154 of WO 2010/130830	WFRQTPGKERELIA (SEQ ID NO: 764)
CDR SEQ ID NO: 155 of WO 2010/130830	WFRQAPGKQREFIA (SEQ ID NO: 765)
CDR SEQ ID NO: 156 of WO 2010/130830	WFRQAPGKEREVVA (SEQ ID NO: 766)
CDR SEQ ID NO: 157 of WO 2010/130830	WFLQAPGKERELIA (SEQ ID NO: 767)
CDR SEQ ID NO: 158 of WO 2010/130830	WFRQAPGKEREVVA (SEQ ID NO: 768)
CDR SEQ ID NO: 159 of WO 2010/130830	WFRQAPGKQREVVA (SEQ ID NO: 769)
CDR SEQ ID NO: 160 of WO 2010/130830	WFRQAPGKEREFVA (SEQ ID NO: 770)
CDR SEQ ID NO: 161 of WO 2010/130830	WFRQGSGKGRELIA (SEQ ID NO: 771)
CDR SEQ ID NO: 171 of WO 2010/130830	GTIVTGTWRSDY (SEQ ID NO: 781)
CDR SEQ ID NO: 172 of WO 2010/130830	GDTGGAAYGY (SEQ ID NO: 782)
CDR SEQ ID NO: 173 of WO 2010/130830	LGIEYA (SEQ ID NO: 783)
CDR SEQ ID NO: 174 of WO 2010/130830	AKGIGVYGY (SEQ ID NO: 784)
CDR SEQ ID NO: 175 of WO 2010/130830	GVTGGAAYGY (SEQ ID NO: 785)
CDR SEQ ID NO: 176 of WO 2010/130830	AELPGTYDY (SEQ ID NO: 786)
CDR SEQ ID NO: 177 of WO 2010/130830	AEPAGVYDV (SEQ ID NO: 787)
CDR SEQ ID NO: 178 of WO 2010/130830	DRRGLASTRAADYDY (SEQ ID NO: 788)
CDR SEQ ID NO: 179 of WO 2010/130830	GDTGGASYGY (SEQ ID NO: 789)

Figure 2A

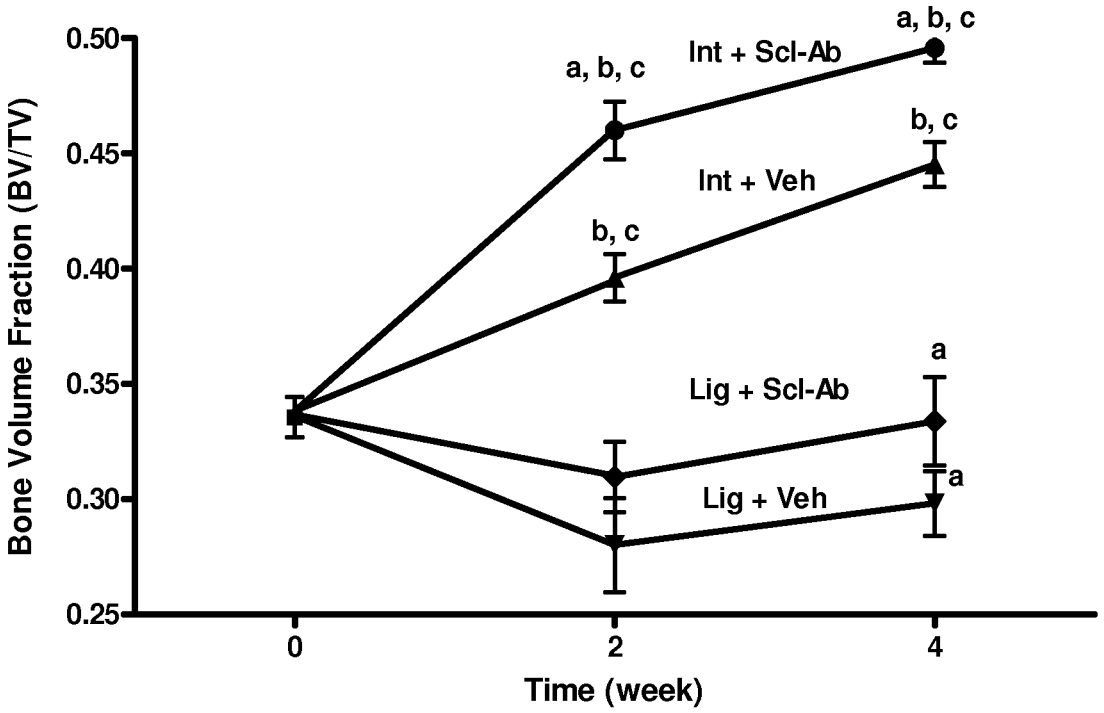

Bone Volume Fraction (BV/TV)
0.50
0.45
0.40
0.35
0.30
0.25
0
2
4
Time (week)
Int + Scl-Ab
Int + Veh
Lig + Scl-Ab
Lig + Veh
a, b, c
a, b, c
b, c
b, c
a
a

Figure 2B

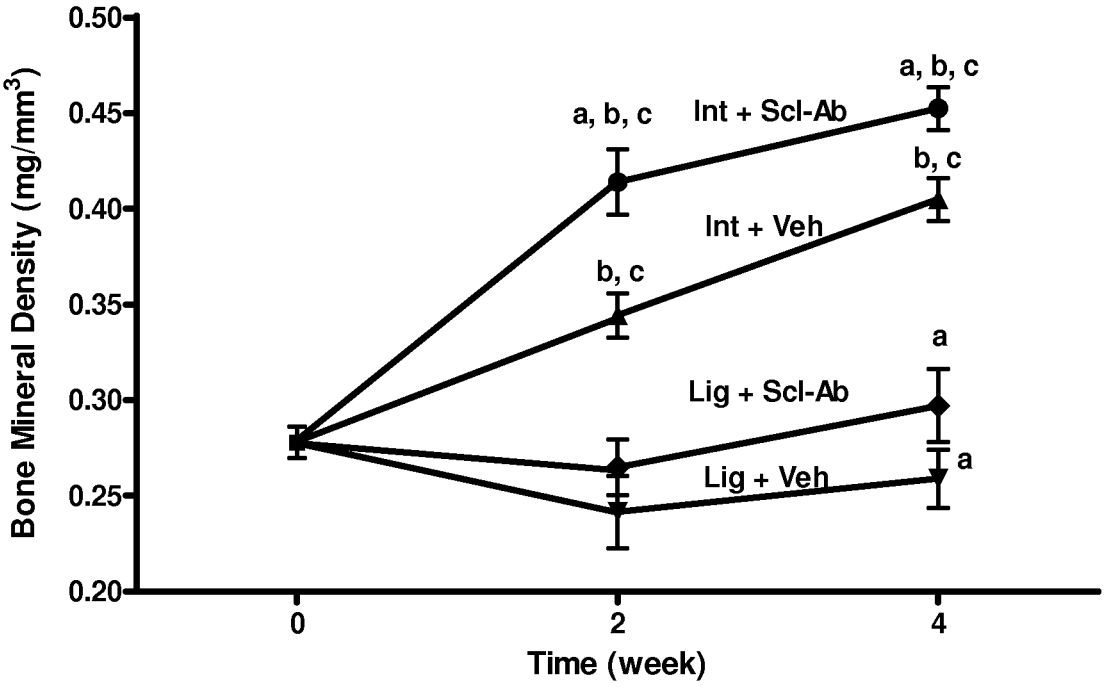

0.50
0.45
0.40
0.35
0.30
0.25
0.20
Bone Mineral Density (mg/mm3)
0
2
4
Time (week)
a, b, c
a, b, c
Int + Scl-Ab
b, c
Int + Veh
b, c
a
Lig + Scl-Ab
a
Lig + Veh

Figure 3A

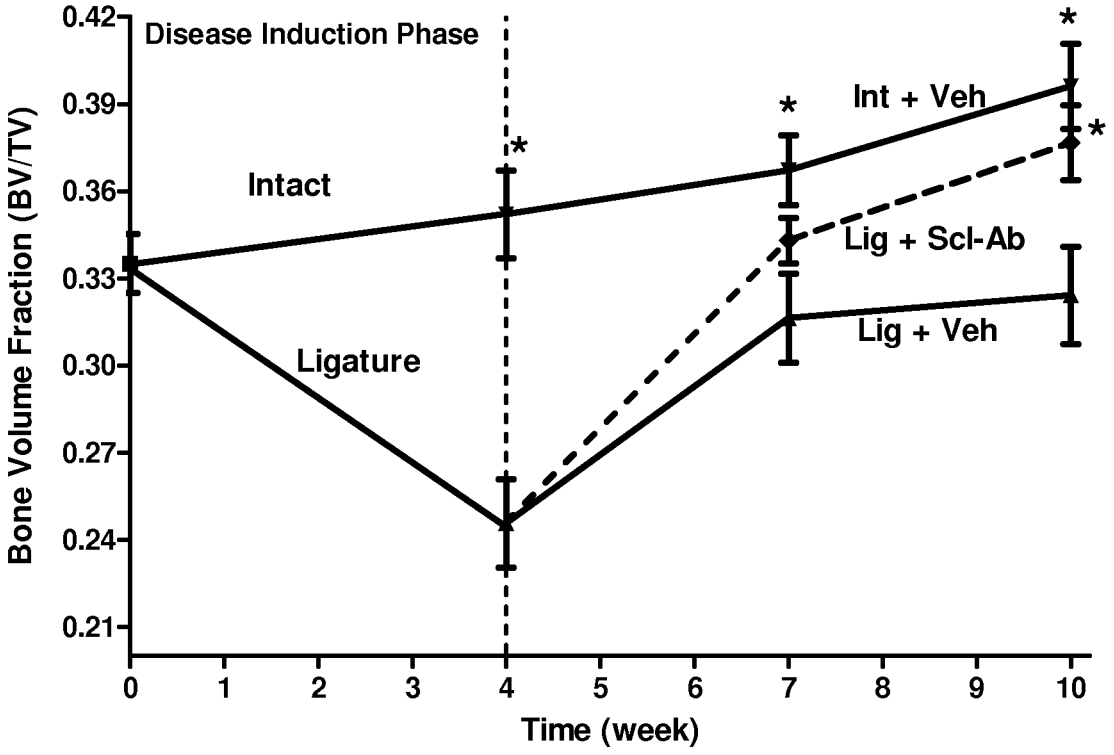

Disease Induction Phase
Intact
Ligature
Int + Veh
Lig + Scl-Ab
Lig + Veh
Bone Volume Fraction (BV/TV)
0.42
0.39
0.36
0.33
0.30
0.27
0.24
0.21
0
1
2
3
4
5
6
7
8
9
10
Time (week)
*

Figure 3B

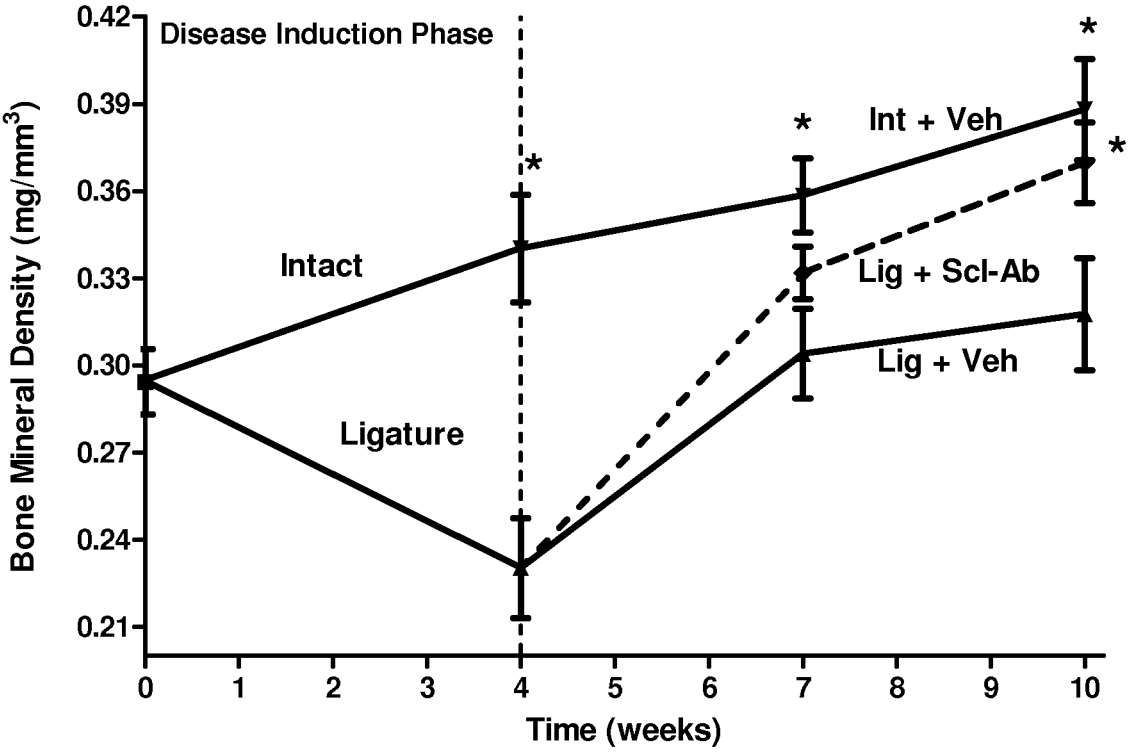

Disease Induction Phase
Bone Mineral Density (mg/mm3)
0.42
0.39
0.36
0.33
0.30
0.27
0.24
0.21
Intact
Ligature
Int + Veh
Lig + Scl-Ab
Lig + Veh
*
*
*
*
0
1
2
3
4
5
6
7
8
9
10
Time (weeks)

Figure 4A

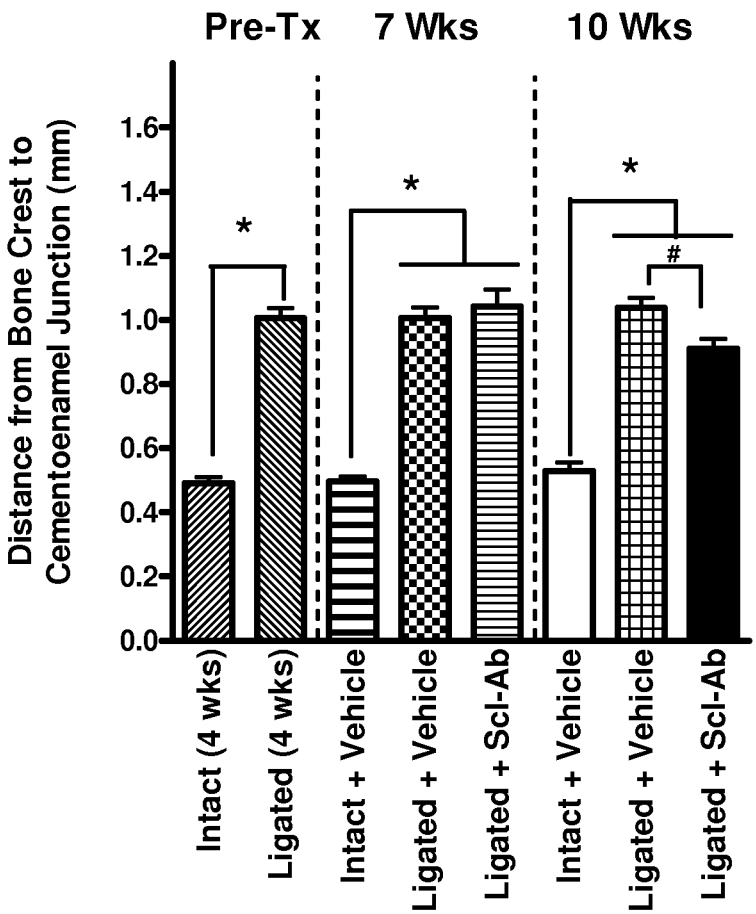

Pre-Tx
7 Wks
10 Wks
Distance from Bone Crest to Cementoenamel Junction (mm)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
*
*
*
#
Intact (4 wks)
Ligated (4 wks)
Intact + Vehicle
Ligated + Vehicle
Ligated + Scl-Ab
Intact + Vehicle
Ligated + Vehicle
Ligated + Scl-Ab

Figure 4B

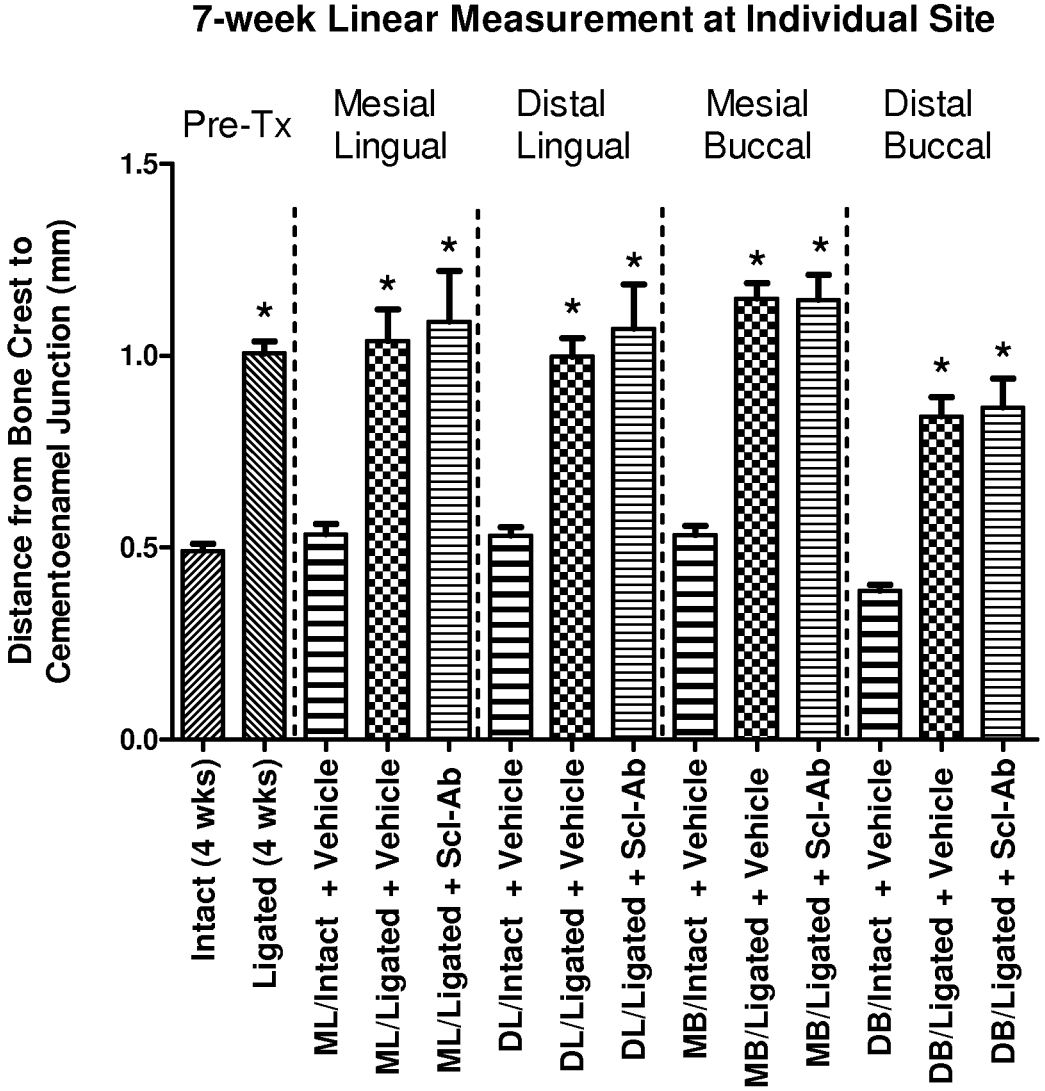
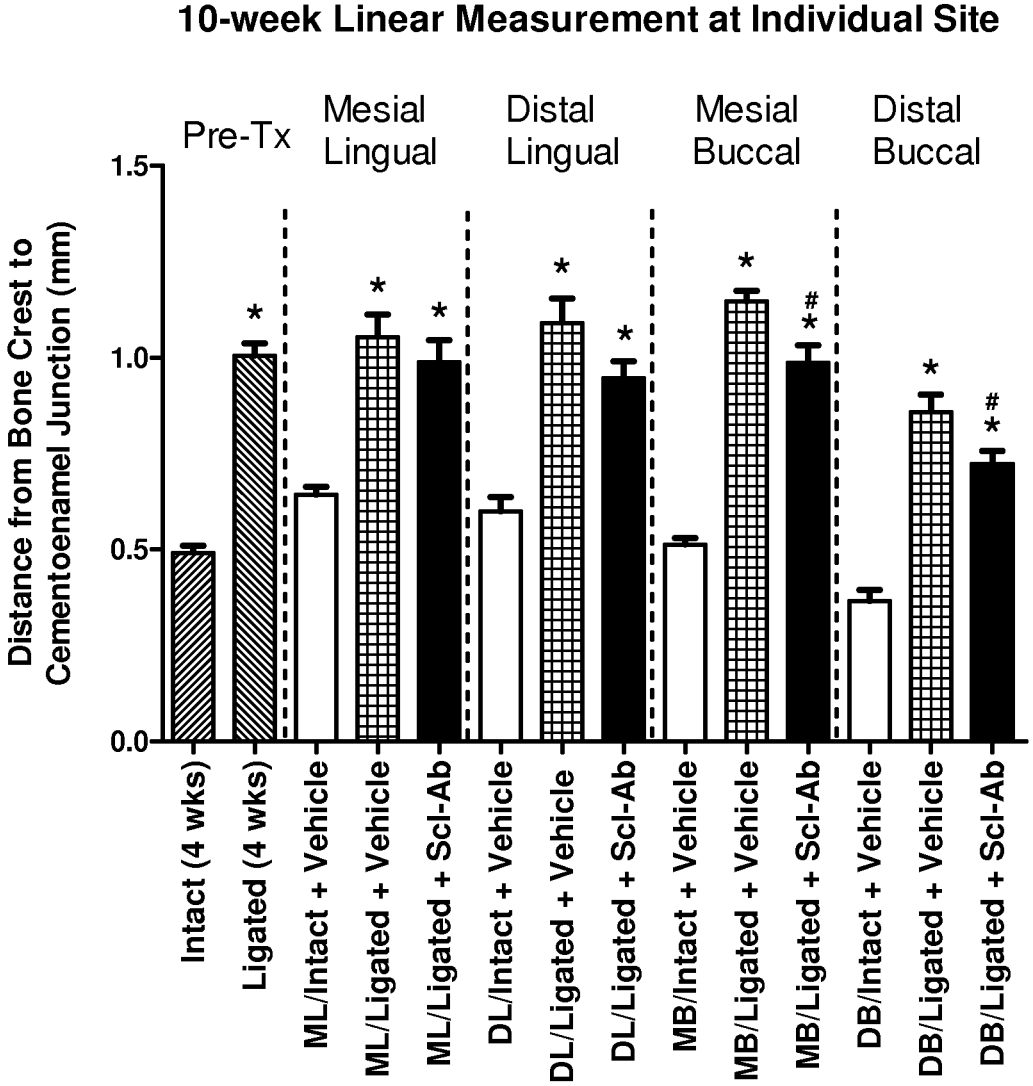

7-week Linear Measurement at Individual Site
Pre-Tx
Mesial Lingual
Distal Lingual
Mesial Buccal
Distal Buccal
Distance from Bone Crest to Cementoenamel Junction (mm)
1.5
1.0
0.5
0.0
*
Intact (4 wks)
Ligated (4 wks)
ML/Intact + Vehicle
ML/Ligated + Vehicle
ML/Ligated + Scl-Ab
DL/Intact + Vehicle
DL/Ligated + Vehicle
DL/Ligated + Scl-Ab
MB/Intact + Vehicle
MB/Ligated + Vehicle
MB/Ligated + Scl-Ab
DB/Intact + Vehicle
DB/Ligated + Vehicle
DB/Ligated + Scl-Ab

Figure 4C


10-week Linear Measurement at Individual Site
Pre-Tx
Mesial Lingual
Distal Lingual
Mesial Buccal
Distal Buccal
Distance from Bone Crest to Cementoenamel Junction (mm)
1.5
1.0
0.5
0.0
Intact (4 wks)
Ligated (4 wks)
ML/Intact + Vehicle
ML/Ligated + Vehicle
ML/Ligated + Scl-Ab
DL/Intact + Vehicle
DL/Ligated + Vehicle
DL/Ligated + Scl-Ab
MB/Intact + Vehicle
MB/Ligated + Vehicle
MB/Ligated + Scl-Ab
DB/Intact + Vehicle
DB/Ligated + Vehicle
DB/Ligated + Scl-Ab