What is claimed is:

1. An antibody that binds to a region of sclerostin comprising amino acids 86-111 of SEQ ID NO: 1,

wherein the antibody comprises a first heavy chain and a first light chain comprising a sclerostin-binding portion and a second heavy chain and a second light chain comprising a DKK1-binding portion, wherein the first heavy chain comprises amino acid substitutions at EU positions 183, 356 and 399, wherein the second heavy chain comprises amino acid substitutions at EU positions 183, 392 and 409, and wherein the first and second light chains comprise an amino acid substitution at EU position 176, wherein the amino acid substitutions introduce a charged amino acid at said positions; wherein the substitutions introduce charged amino acids that are electrostatically unfavorable to homodimer formation and electrostatically favorable to heterodimer formation,

wherein the antibody comprises a set of six CDRs selected from the group consisting of a) CDR sequences of SEQ ID NOs:54, 55, and 56 and CDR sequences of SEQ ID NOs:51, 52, and 53; b) CDR sequences of SEQ ID NOs:60, 61, and 62 and CDR sequences of SEQ ID NOs:57, 58, and 59; c) CDR sequences of SEQ ID NOs:48, 49, and 50 and CDR sequences of SEQ ID NOs: 45, 46, and 47; d) CDR sequences of SEQ ID NOs:42, 43, and 44 and CDR sequences of SEQ ID NOs:39, 40, and 41; e) CDR sequences of SEQ ID NOs:275, 276, and 277 and CDR sequences of SEQ ID NOs:287, 288, and 289; f) CDR sequences of SEQ ID NOs:278, 279, and 280 and CDR sequences of SEQ ID NOs:290, 291, and 292; g) CDR sequences of SEQ ID NOs:78, 79, and 80 and CDR sequences of SEQ ID NOs: 245, 246, and 247; h) CDR sequences of SEQ ID NOs:81, 99, and 100 and CDR sequences of SEQ ID NOs:248, 249, and 250; i) CDR sequences of SEQ ID NOs:101, 102, and 103 and CDR sequences of SEQ ID NOs:251, 252, and 253; j) CDR sequences of SEQ ID NOs:104, 105, and 106 and CDR sequences of SEQ ID NOs:254, 255, and 256; k) CDR sequences of SEQ ID NOs:107, 108, and 109 and CDR sequences of SEQ ID NOs:257, 258, and 259; l) CDR sequences of SEQ ID NOs:110, 111, and 112 and CDR sequences of SEQ ID NOs:260, 261, and 262; m) CDR sequences of SEQ ID NOs:281, 282, and 283 and CDR sequences of SEQ ID NOs:293, 294, and 295; n) CDR sequences of SEQ ID NOs:113, 114, and 115 and CDR sequences of SEQ ID NOs:263, 264, and 265; o) CDR sequences of SEQ ID NOs:284, 285, and 286 and CDR sequences of SEQ ID NOs:296, 297, and 298; p) CDR sequences of SEQ ID NOs:116, 237, and 238 and CDR sequences of SEQ ID NOs:266, 267, and 268; q) CDR sequences of SEQ ID NOs:239, 240, and 241 and CDR sequences of SEQ ID NOs:269, 270,

and 271) CDR sequences of SEQ ID NOs:242, 243, and 244 and CDR sequences of SEQ ID NOs:272, 273, and 274; and s) CDR sequences of SEQ ID NOs:351, 352, and 353 and CDR sequences of SEQ ID NOs:358, 359, and 360.

2. The antibody of claim 1 that comprises a light chain comprising a variable region amino acid sequence selected from the group consisting of SEQ ID NO: 364, SEQ ID NO: 376, SEQ ID NO: 75, SEQ ID NO: 384, SEQ ID NO: 388, SEQ ID NO: 380, SEQ ID NO: 299, SEQ ID NO: 303, SEQ ID NO: 314, SEQ ID NO: 311, SEQ ID NO: 315 and SEQ ID NO: 368.

3. The antibody of any of the preceding claims that comprises a heavy chain comprising a variable region amino acid sequence selected from the group consisting of SEQ ID NO: 366, SEQ ID NO: 378, SEQ ID NO: 77, SEQ ID NO: 386, SEQ ID NO: 390, SEQ ID NO: 382, SEQ ID NO: 301, SEQ ID NO: 305, SEQ ID NO: 327, SEQ ID NO: 313, SEQ ID NO: 317 and SEQ ID NO: 370.

4. The antibody according to claim 1, wherein the antibody comprises

a first heavy chain and a first light chain comprising a sclerostin-binding portion and a second heavy chain and a second light chain comprising a DKK1-binding portion, wherein the first heavy chain comprises amino acid substitutions at AHo position 46 and EU positions 183, 356 and 399, wherein the second heavy chain comprises amino acid substitutions at AHo position 46 and EU positions 183, 392 and 409, wherein the first and second light chains comprise an amino acid substitution at AHo position 46 and EU position 176, and wherein the amino acid substitutions introduce a charged amino acid at said positions.

5. The heterodimeric antibody of claim 1, wherein the sclerostin-binding portion comprises a set of six CDRs selected from the group consisting of a) CDR-L1 of SEQ ID NO: 284, CDR-L2 of SEQ ID NO: 285, CDR-L3 of SEQ ID NO: 286, CDR-H1 of SEQ ID NO: 296, CDR-H2 of SEQ ID NO: 297, and CDR-H3 of SEQ ID NO: 298; b) CDR-L1 of SEQ ID NO: 48, CDR-L2 of SEQ ID NO: 49, CDR-L3 of SEQ ID NO: 50, CDR-H1 of SEQ ID NO: 45, CDR-H2 of SEQ ID NO: 46, and CDR-H3 of SEQ ID NO: 47; and c) CDR-L1 of SEQ ID NO: 42, CDR-L2 of SEQ ID NO: 43, CDR-L3 of SEQ ID NO: 44, CDR-H1 of SEQ ID NO: 39, CDR-H2 of SEQ ID NO: 40, and CDR-H3 of SEQ ID NO: 41.

6. The heterodimeric antibody of claim 1, wherein the sclerostin-binding portion comprises a heavy chain and a light chain comprising CDR-H1 of SEQ ID NO: 269, CDR-

H2 of SEQ ID NO: 270, CDR-H3 of SEQ ID NO: 271, CDR-L1 of SEQ ID NO: 239, CDR-L2 of SEQ ID NO: 240 and CDR-L3 of SEQ ID NO: 241.

7. The heterodimeric antibody of claim 1, wherein the first light chain comprises a variable region amino acid sequence selected from the group consisting of SEQ ID NO: 364, SEQ ID NO: 376, SEQ ID NO: 75, SEQ ID NO: 384, SEQ ID NO: 388, SEQ ID NO: 380, SEQ ID NO: 299, SEQ ID NO: 303, SEQ ID NO: 314, SEQ ID NO: 311, SEQ ID NO: 315 and SEQ ID NO: 368.

8. The heterodimeric antibody of claim 1, wherein the first heavy chain comprises a variable region amino acid sequence selected from the group consisting of SEQ ID NO: 366, SEQ ID NO: 378, SEQ ID NO: 77, SEQ ID NO: 386, SEQ ID NO: 390, SEQ ID NO: 382, SEQ ID NO: 301, SEQ ID NO: 305, SEQ ID NO: 327, SEQ ID NO: 313, SEQ ID NO: 317 and SEQ ID NO: 370.

9. The heterodimeric antibody of claim 1, wherein the DKK1-binding portion comprises a set of six CDRs selected from the group consisting of (a) SEQ ID NOs: 820-825, (b) SEQ ID NOs: 828-833, (c) SEQ ID NOs: 836-841, (d) SEQ ID NOs: 844-849, (e) SEQ ID NOs: 852-857, (f) SEQ ID NOs: 860-865, (g) SEQ ID NOs: 868-873, (h) SEQ ID NOs: 876-881, (i) SEQ ID NOs: 884-889, (j) SEQ ID NOs: 892-897, (k) SEQ ID NOs: 900-905, (l) SEQ ID NOs: 908-913, (m) SEQ ID NOs: 916-921, (n) SEQ ID NOs: 924-929, (o) SEQ ID NOs: 932-937, (p) SEQ ID NOs: 940-945, (q) SEQ ID NOs: 948-953, (r) SEQ ID NOs: 956-961, (s) SEQ ID NOs: 964-969, (t) SEQ ID NOs: 972-977, (u) SEQ ID NOs: 980-985, (v) SEQ ID NOs: 988-993, (w) SEQ ID NOs: 996-1001, and (x) SEQ ID NOs: 1004-1009.

10. The heterodimeric antibody of claim 1, wherein the DKK1-binding portion comprises a set of six CDRs selected from the group consisting of SEQ ID NOs: 980-985 and SEQ ID NOs: 1004-1009.

11. The heterodimeric antibody of claim 1, wherein the second light chain comprises a variable region amino acid sequence selected from the group consisting of SEQ ID NO: 818, SEQ ID NO: 826, SEQ ID NO: 834, SEQ ID NO: 842, SEQ ID NO: 850, SEQ ID NO: 866, SEQ ID NO: 874, SEQ ID NO: 882, SEQ ID NO: 890, SEQ ID NO: 898, SEQ ID NO: 906, SEQ ID NO: 814, SEQ ID NO: 822, SEQ ID NO: 830, SEQ ID NO: 938, SEQ ID NO: 946, SEQ ID NO: 954, SEQ ID NO: 962, SEQ ID NO: 970, SEQ ID NO: 978, SEQ ID NO: 988, SEQ ID NO: 994 and SEQ ID NO: 1002.

12. The heterodimeric antibody of claim 1, wherein the second heavy chain comprises a variable region amino acid sequence selected from the group consisting of SEQ ID NO: 819, SEQ ID NO: 827, SEQ ID NO: 835, SEQ ID NO: 843, SEQ ID NO: 851, SEQ ID NO: 859, SEQ ID NO: 867, SEQ ID NO: 875, SEQ ID NO: 883, SEQ ID NO: 891, SEQ ID NO: 899, SEQ ID NO: 907, SEQ ID NO: 915, SEQ ID NO: 923, SEQ ID NO: 931, SEQ ID NO: 939, SEQ ID NO: 947, SEQ ID NO: 955, SEQ ID NO: 963, SEQ ID NO: 971, SEQ ID NO: 979, SEQ ID NO: 987, SEQ ID NO: 995 and SEQ ID NO: 1003.

13. A heterodimeric antibody that binds sclerostin and DKK-1, comprising

(a) a first heavy chain comprising a variable region amino acid sequence set forth in SEQ ID NO: 378 and comprising amino acid substitutions at EU positions 183, 356 and 399 of the first heavy chain,

a second heavy chain comprising a variable region amino acid sequence set forth in SEQ ID NO: 1003 and comprising amino acid substitutions at EU positions 183, 392 and 409 of the second heavy chain,

a first light chain comprising a variable region amino acid sequence set forth in SEQ ID NO: 376 and comprising an amino acid substitution at EU position 176 of the first light chain, and

a second light chain comprising a variable region amino acid sequence set forth in SEQ ID NO: 1002 and comprising an amino acid substitution at EU position 176 of the second light chain; or

(b) a first heavy chain comprising a variable region amino acid sequence set forth in SEQ ID NO: 366 and comprising amino acid substitutions at EU positions 183, 356 and 399 of the first heavy chain,

a second heavy chain comprising a variable region amino acid sequence set forth in SEQ ID NO: 979 and comprising amino acid substitutions at EU positions 183, 392 and 409 of the second heavy chain,

a first light chain comprising a variabl region amino acid sequence set forth in SEQ ID NO: 364 and comprising an amino acid substitution at EU position 176 of the first light chain, and

a second light chain comprising a variable region amino acid sequence set forth in SEQ ID NO: 978 and comprising an amino acid substitution at EU position 176 of the second light chain; or

(c) a first heavy chain comprising a variable region amino acid sequence set forth in SEQ ID NO: 366 and comprising amino acid substitutions at EU positions 183, 356 and 399 of the first heavy chain,

a second heavy chain comprising a variable region amino acid sequence set forth in SEQ ID NO: 1003 and comprising amino acid substitutions at EU positions 183, 392 and 409 of the second heavy chain,

a first light chain comprising a variable region amino acid sequence set forth in SEQ ID NO: 364 and comprising an amino acid substitution at EU position 176 of the first light chain, and

a second light chain comprising a variable region amino acid sequence set forth in SEQ ID NO: 1002 and comprising an amino acid substitution at EU position 176 of the second light chain; or

(d) a first heavy chain comprising a variable region amino acid sequence set forth in SEQ ID NO: 378 and comprising amino acid substitutions at EU positions 183, 356 and 399 of the first heavy chain,

a second heavy chain comprising a variable region amino acid sequence set forth in SEQ ID NO: 1003 and comprising amino acid substitutions at EU positions 183, 392 and 409 of the second heavy chain,

a first light chain comprising a variable region amino acid sequence set forth in SEQ ID NO: 376 and comprising an amino acid substitution at EU position 176 of the first light chain, and

a second light chain comprising a variable region amino acid sequence set forth in SEQ ID NO: 1002 and comprising an amino acid substitution at EU position 176 of the second light chain

wherein the amino acid substitutions introduce a charged amino acid at said positions, wherein the substitutions that are electrostatically unfavorable to homodimer formation and electrostatically unfavorable to heterodimer formation..

14. A heterodimeric antibody that binds sclerostin and DKK-1, comprising

(a) a first heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1038; a second heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1034; a first light chain comprising the amino acid sequence set forth in SEQ ID NO: 1039 and a second light chain comprising the amino acid sequence set forth in SEQ ID NO: 1035;

(b) a first heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1038; a second heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1036; a first light chain comprising the amino acid sequence set forth in SEQ ID NO: 1039 and a second light chain comprising the amino acid sequence set forth in SEQ ID NO: 1037;

(c) a first heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1040; a second heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1034; a first light chain comprising the amino acid sequence set forth in SEQ ID NO: 1041 and a second light chain comprising the amino acid sequence set forth in SEQ ID NO: 1035;

(d) a first heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1040; a second heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1036; a first light chain comprising the amino acid sequence set forth in SEQ ID NO: 1041 and a second light chain comprising the amino acid sequence set forth in SEQ ID NO: 1037;

(e) a first heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1046; a second heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1042; a first light chain comprising the amino acid sequence set forth in SEQ ID NO: 1047 and a second light chain comprising the amino acid sequence set forth in SEQ ID NO: 1043;

(f) a first heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1046; a second heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1044; a first light chain comprising the amino acid sequence set forth in SEQ ID NO: 1047 and a second light chain comprising the amino acid sequence set forth in SEQ ID NO: 1045;

(g) a first heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1048; a second heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1042; a first light chain comprising the amino acid sequence set forth in SEQ ID NO:

1049 and a second light chain comprising the amino acid sequence set forth in SEQ ID NO: 1043; or

(h) a first heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1048; a second heavy chain comprising the amino acid sequence set forth in SEQ ID NO: 1044; a first light chain comprising the amino acid sequence set forth in SEQ ID NO: 1049 and a second light chain comprising the amino acid sequence set forth in SEQ ID NO: 1045.

15. The heterodimeric antibody of claim 1, that is an IgG immunoglobulin.

16. A nucleic acid comprising a nucleotide sequence encoding the heterodimeric antibody according to claim 1.

17. A vector comprising the nucleotide sequence of claim 16.

18. An isolated host cell comprising the nucleic acid of claim 16.

19. Use of heterodimeric antibody of any one of claim 1 and claims 5-15 in the manufacture of a medicament for increasing bone mineral density in a mammalian subject in need of increased bone mineral density.

20. A composition comprising the antibody of any one of claims 4-15 and a pharmaceutically acceptable carrier, diluent or adjuvant.