Fig. 1

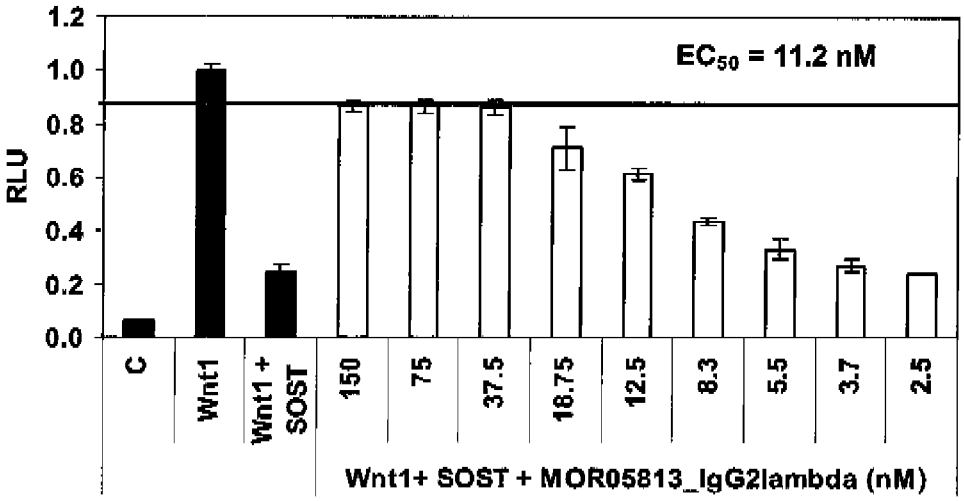

1.2
1.0
0.8
0.6
0.4
0.2
0.0
RLU
EC50 = 11.2 nM
C
Wnt1
Wnt1 + SOST
150
75
37.5
18.75
12.5
8.3
5.5
3.7
2.5
Wnt1+ SOST + MOR05813_IgG2lambda (nM)

Fig. 2

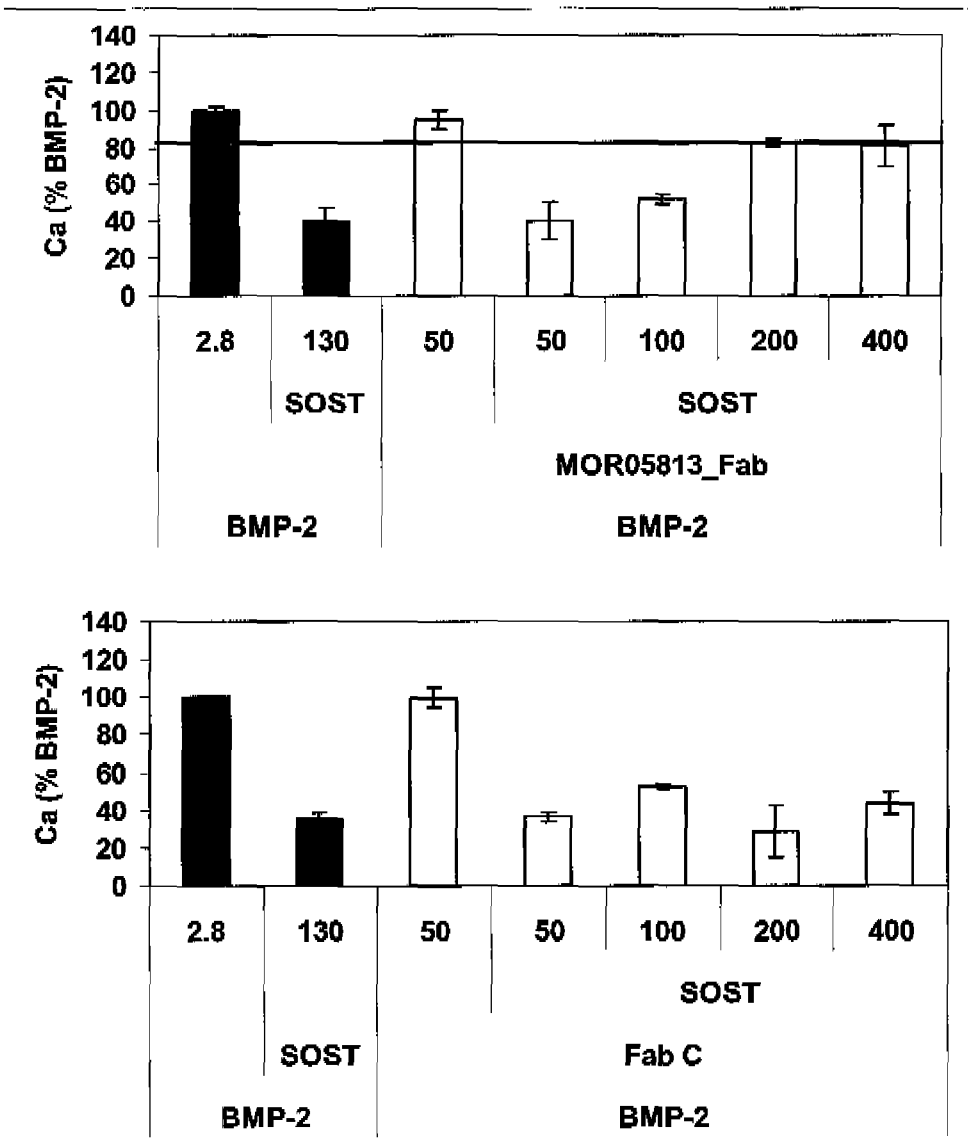

Ca (% BMP-2)
140
120
100
80
60
40
20
0
2.8
130
50
50
100
200
400
SOST
SOST
MOR05813_Fab
BMP-2
BMP-2
Ca (% BMP-2)
140
120
100
80
60
40
20
0
2.8
130
50
50
100
200
400
SOST
SOST
Fab C
BMP-2
BMP-2

Fig. 3

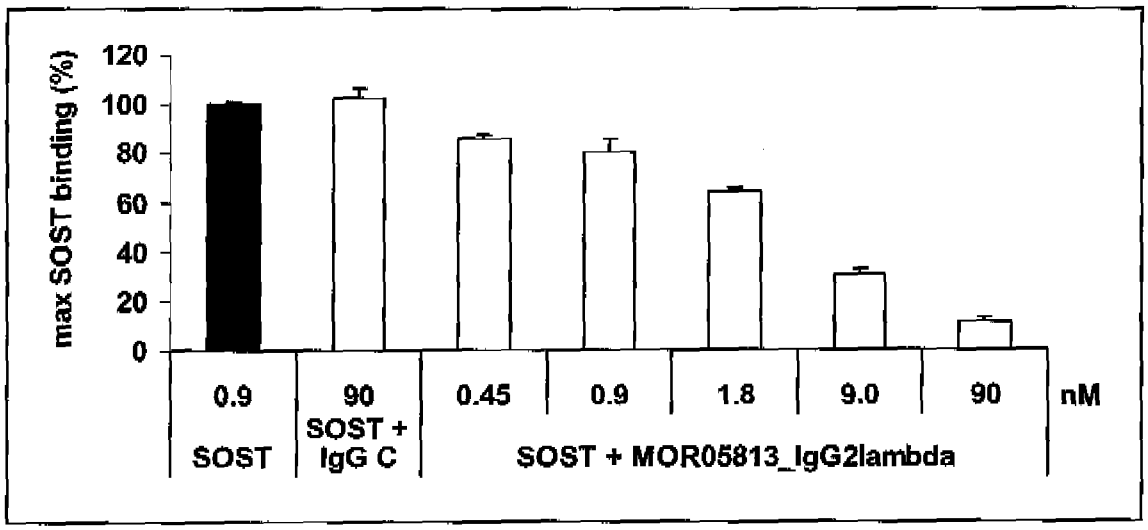

max SOST binding (%)
120
100
80
60
40
20
0
0.9
90
0.45
0.9
1.8
9.0
90
nM
SOST
SOST + IgG C
SOST + MOR05813_IgG2lambda

Fig. 4

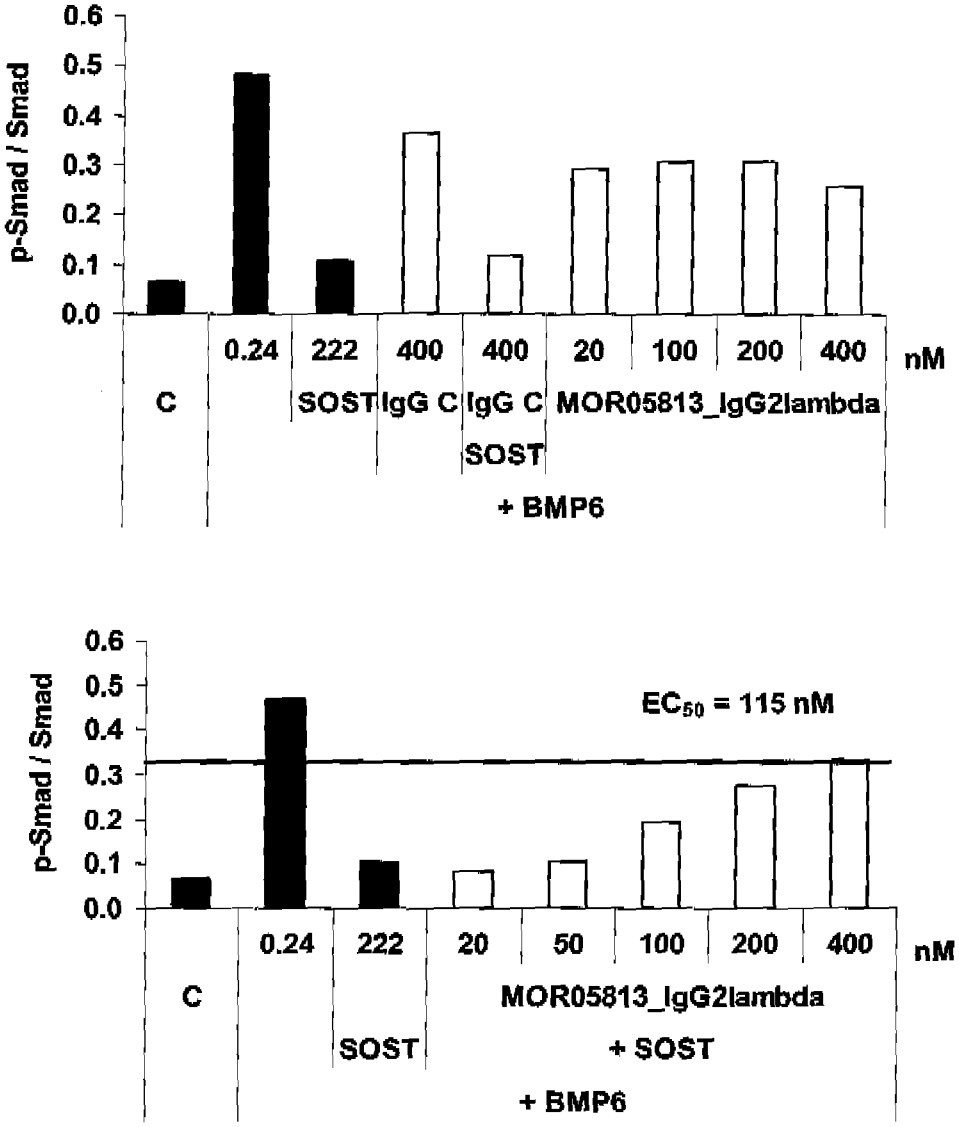
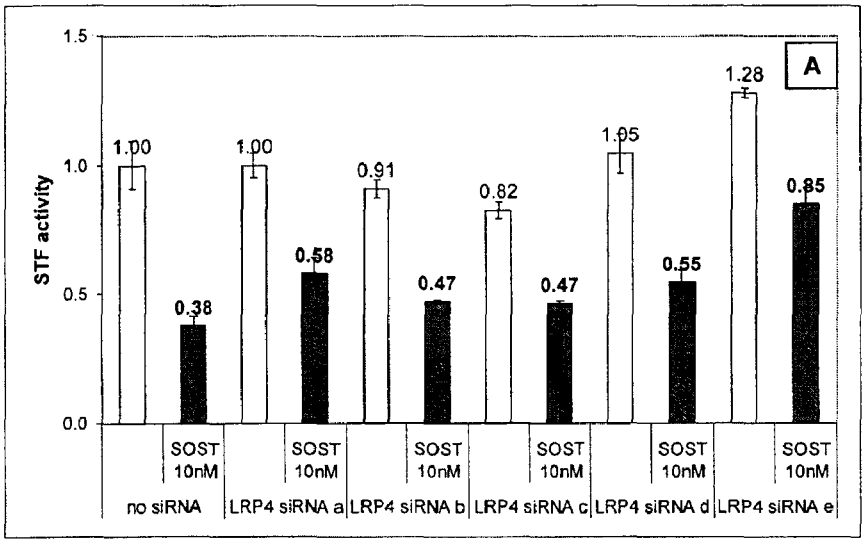

p-Smad / Smad
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.24
222
400
400
20
100
200
400
nM
C
SOST
IgG C
IgG C
SOST
MOR05813_IgG2lambda
+ BMP6
p-Smad / Smad
EC50 = 115 nM
0.24
222
20
50
100
200
400
nM
C
SOST
MOR05813_IgG2lambda
+ SOST
+ BMP6

Fig. 5


A
STF activity
1.5
1.0
0.5
0.0
1.00
0.38
1.00
0.58
0.91
0.47
0.82
0.47
1.05
0.55
1.28
0.85
SOST 10nM
no siRNA
LRP4 siRNA a
LRP4 siRNA b
LRP4 siRNA c
LRP4 siRNA d
LRP4 siRNA e

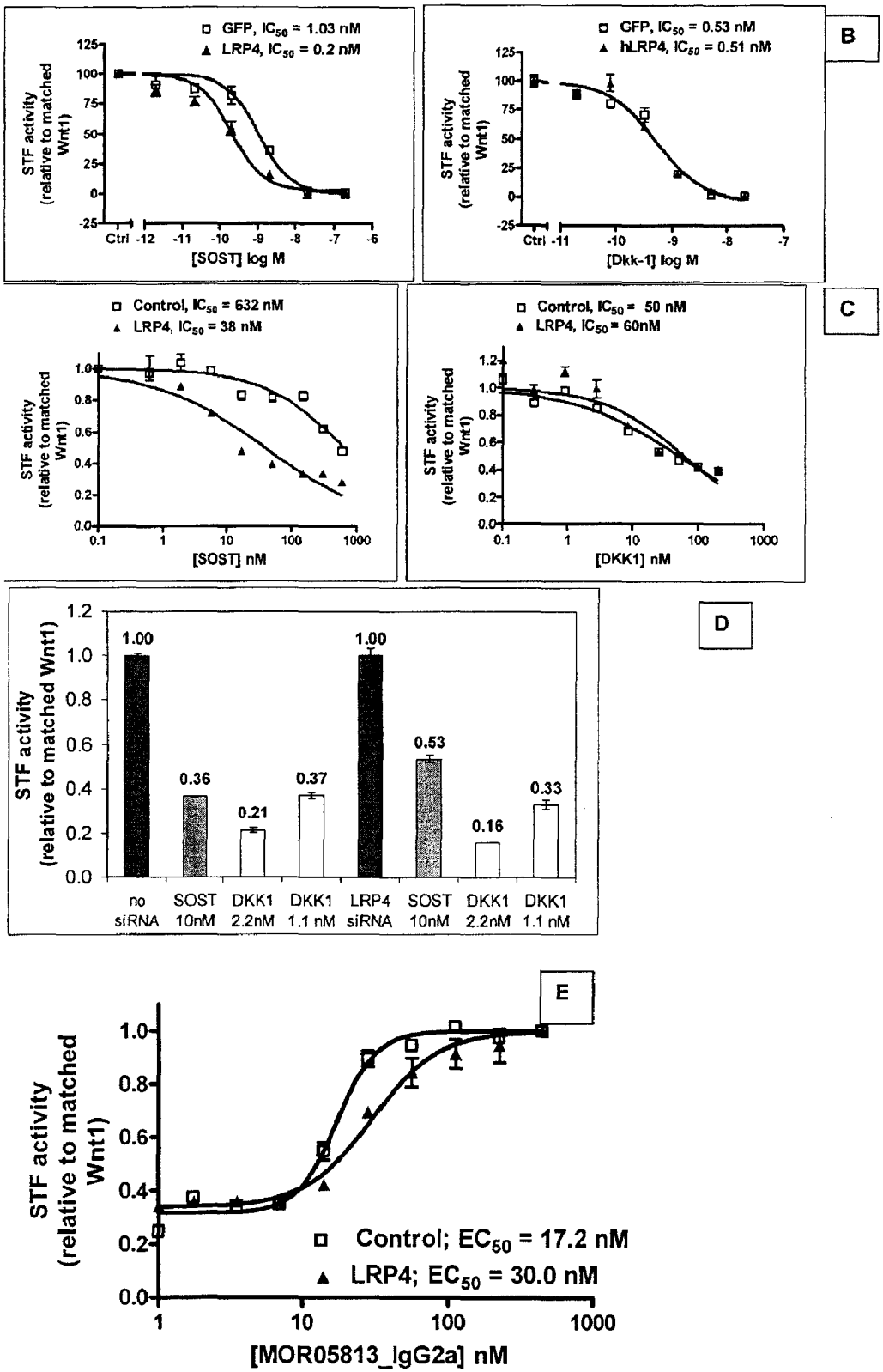

B
GFP, IC50 = 1.03 nM
LRP4, IC50 = 0.2 nM
STF activity (relative to matched Wnt1)
[SOST] log M
GFP, IC50 = 0.53 nM
hLRP4, IC50 = 0.51 nM
[Dkk-1] log M
C
Control, IC50 = 632 nM
LRP4, IC50 = 38 nM
[SOST] nM
Control, IC50 = 50 nM
LRP4, IC50 = 60nM
[DKK1] nM
D
STF activity (relative to matched Wnt1)
1.00
0.36
0.21
0.37
1.00
0.53
0.16
0.33
no siRNA
SOST 10nM
DKK1 2.2nM
DKK1 1.1 nM
LRP4 siRNA
SOST 10nM
DKK1 2.2nM
DKK1 1.1 nM
E
STF activity (relative to matched Wnt1)
Control; EC50 = 17.2 nM
LRP4; EC50 = 30.0 nM
[MOR05813_IgG2a] nM

Fig. 6

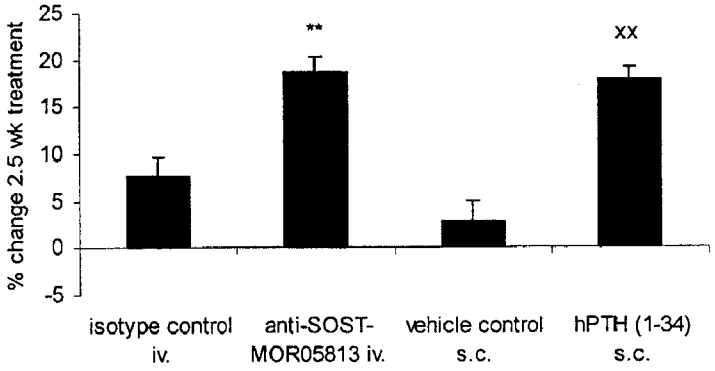


Fig. 7

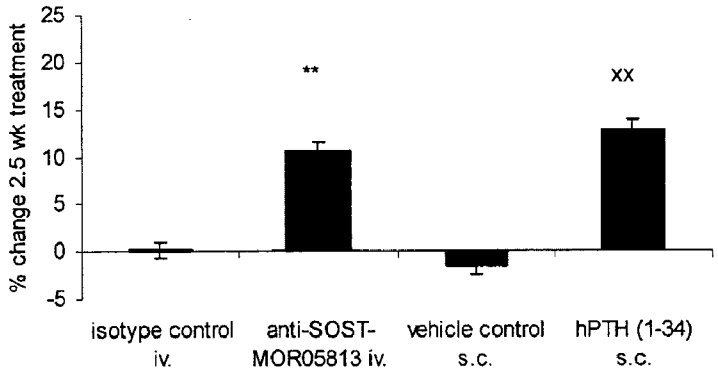


Fig. 8

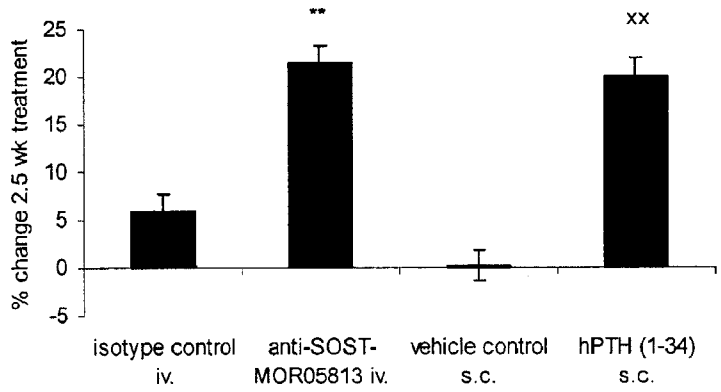


Fig. 9

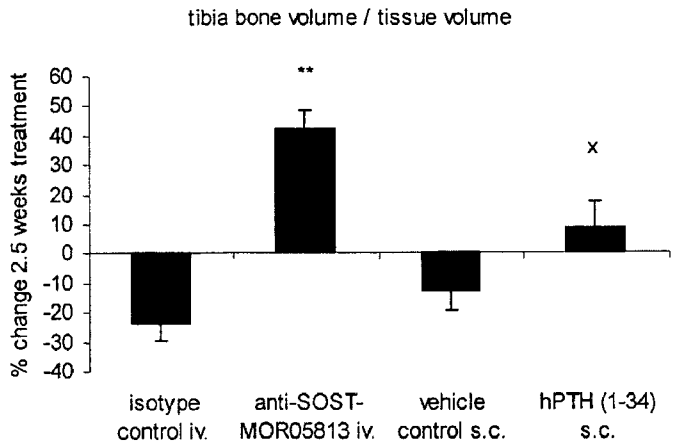

tibia bone volume / tissue volume
% change 2.5 weeks treatment
60
50
40
30
20
10
0
-10
-20
-30
-40
**
x
isotype control iv.
anti-SOST-MOR05813 iv.
vehicle control s.c.
hPTH (1-34) s.c.

Fig. 10

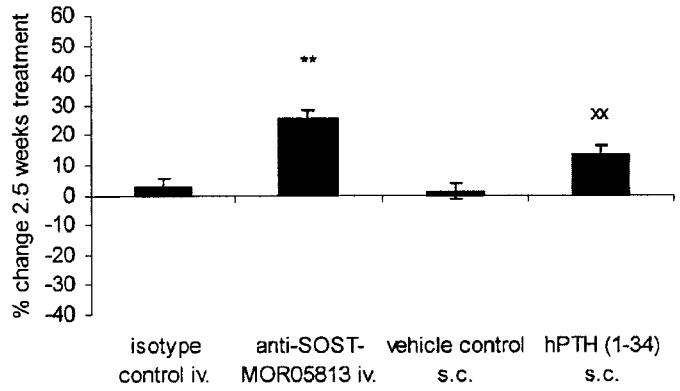

% change 2.5 weeks treatment
60
50
40
30
20
10
0
-10
-20
-30
-40
**
xx
isotype control iv.
anti-SOST-MOR05813 iv.
vehicle control s.c.
hPTH (1-34) s.c.

Fig. 11

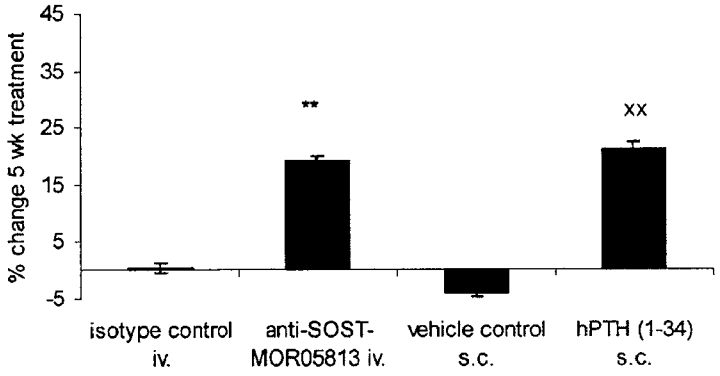


Fig. 12

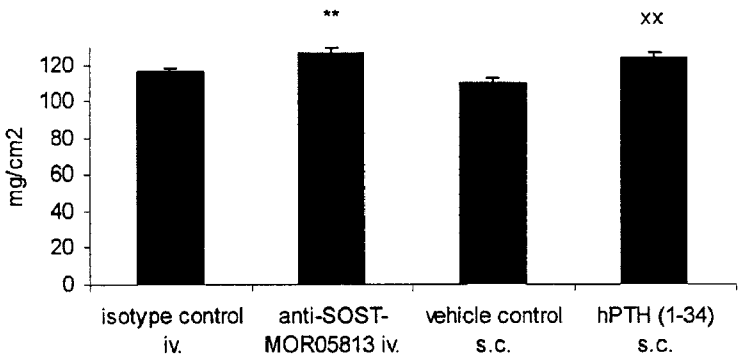


Fig. 13

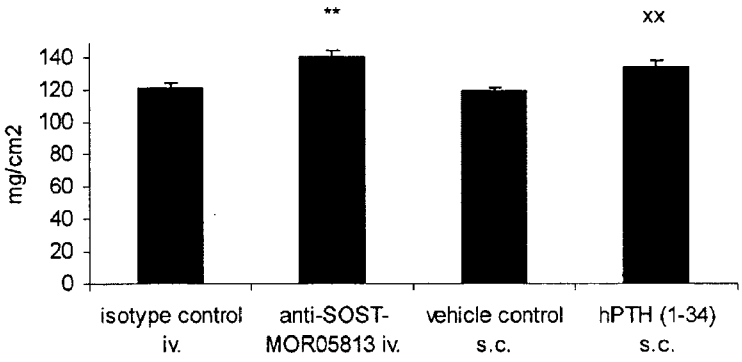


Fig. 14

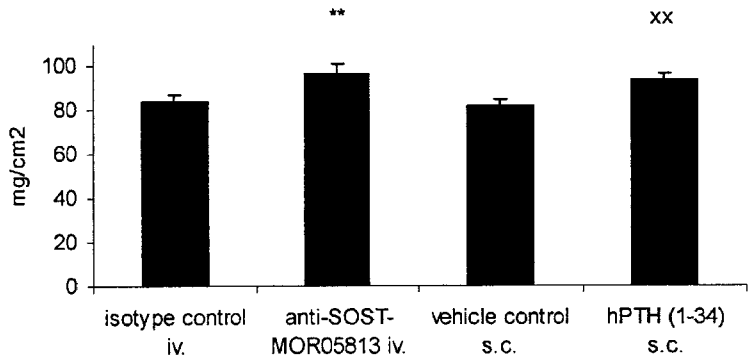


Fig. 15

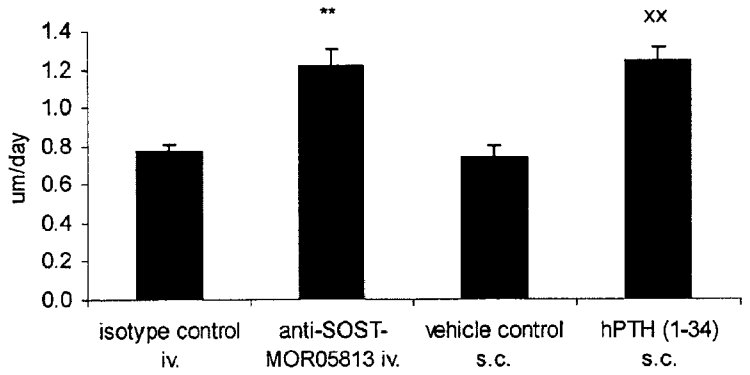


Fig. 16

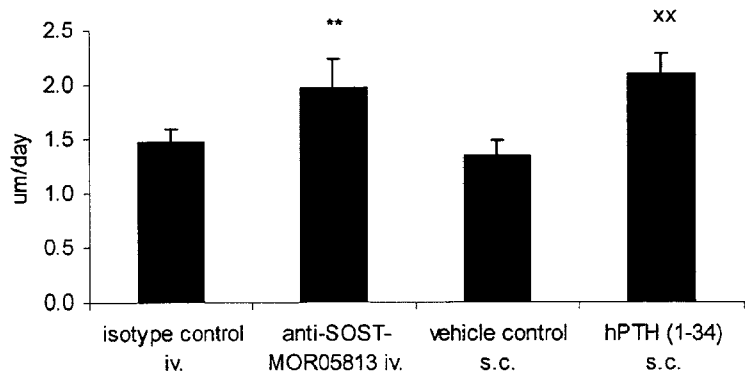


Fig. 17

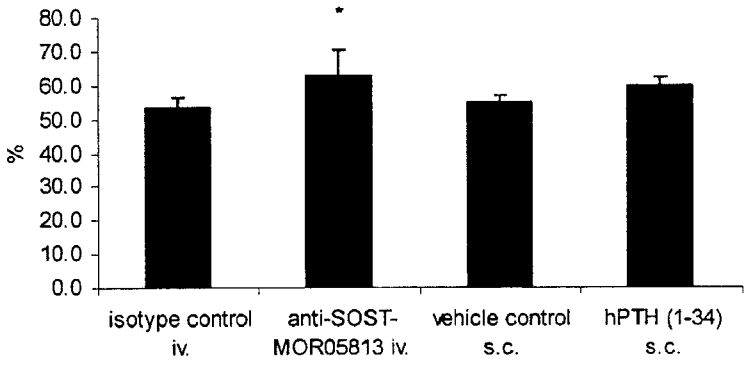


Fig. 18

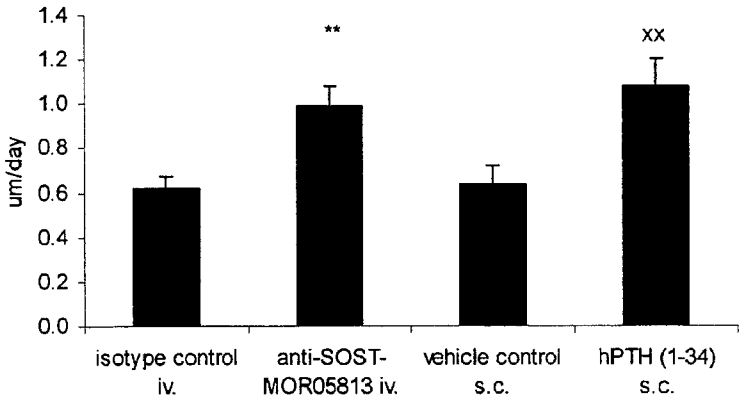


Fig. 19

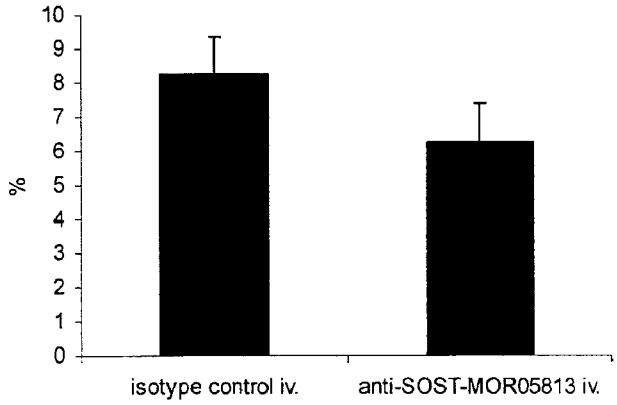


Fig.20

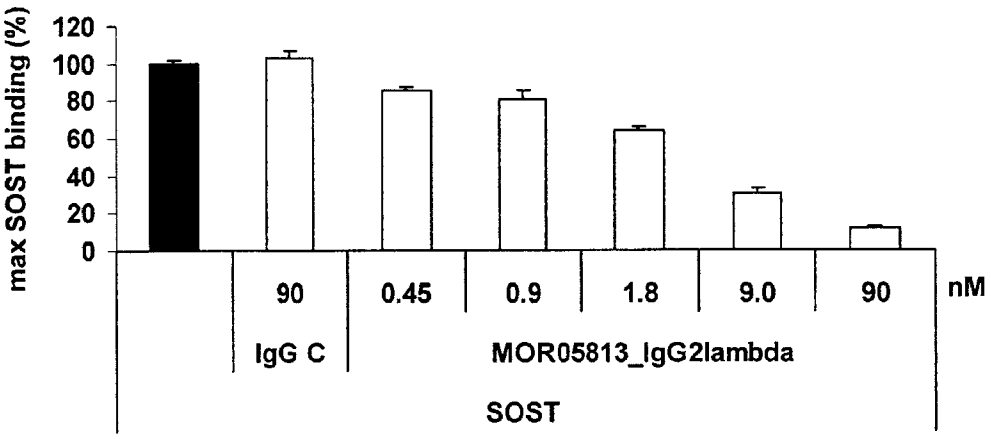

max SOST binding (%)
120
100
80
60
40
20
0
90
0.45
0.9
1.8
9.0
90
nM
IgG C
MOR05813_IgG2lambda
SOST

Fig. 21

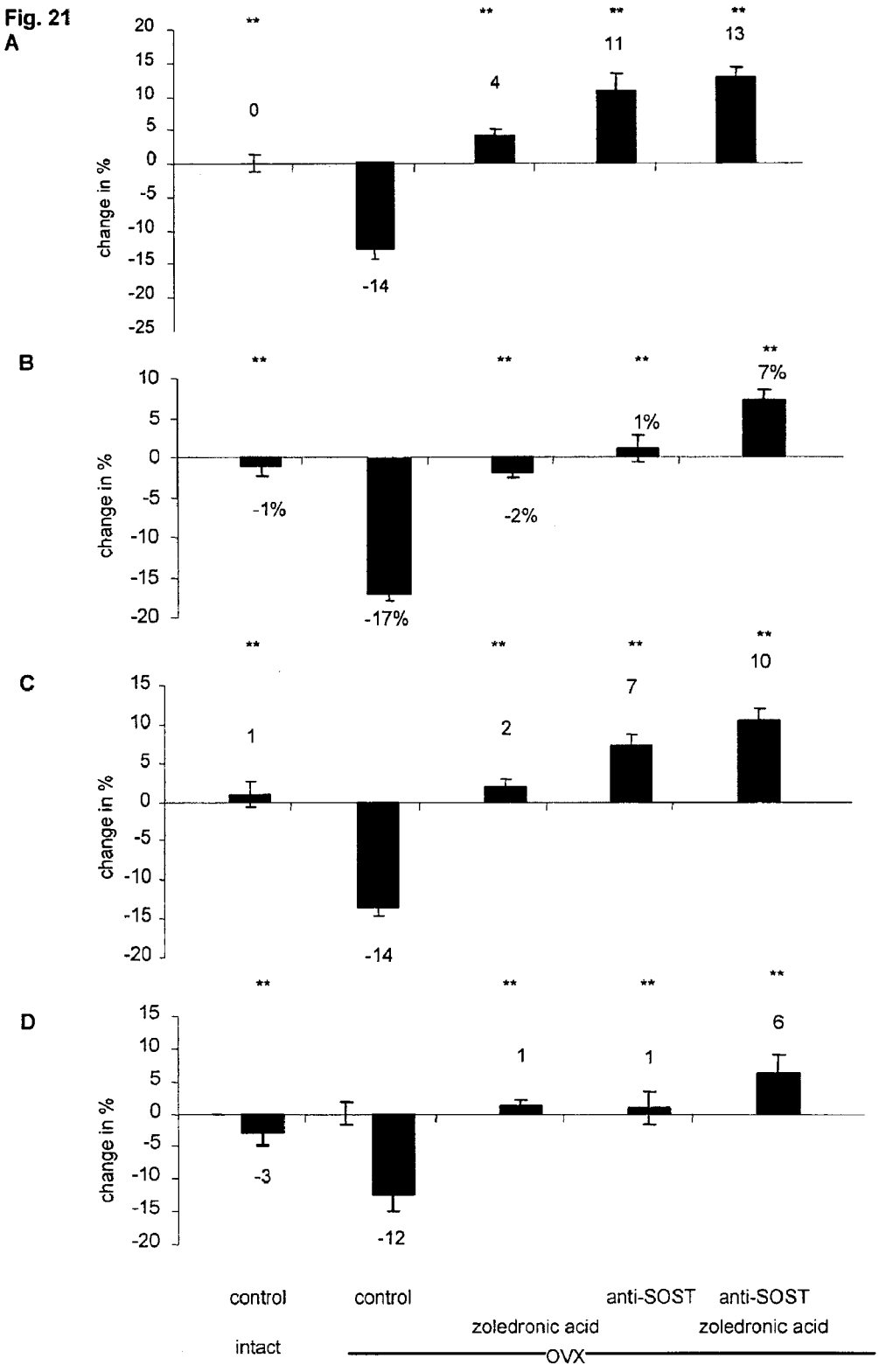

A
B
C
D
change in %
**
0
4
11
13
-14
-1%
-2%
1%
7%
-17%
1
2
7
10
-14
-3
1
1
6
-12
control
intact
control
zoledronic acid
anti-SOST
anti-SOST
zoledronic acid
OVX

Fig. 22

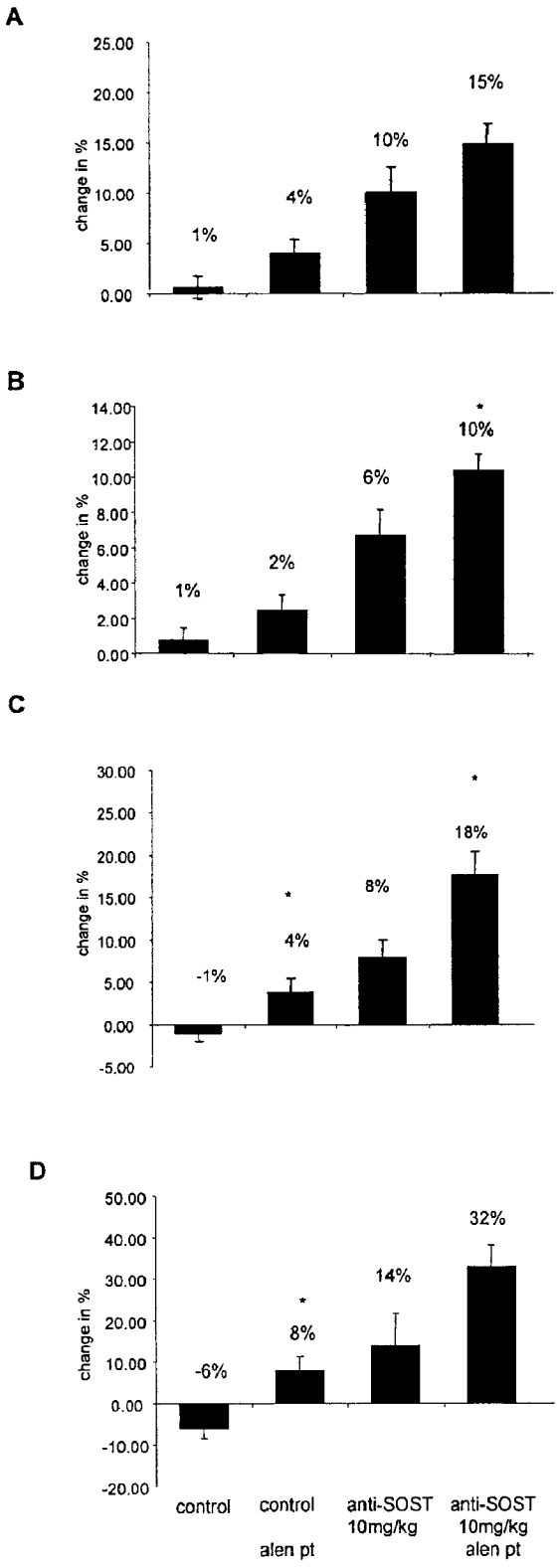
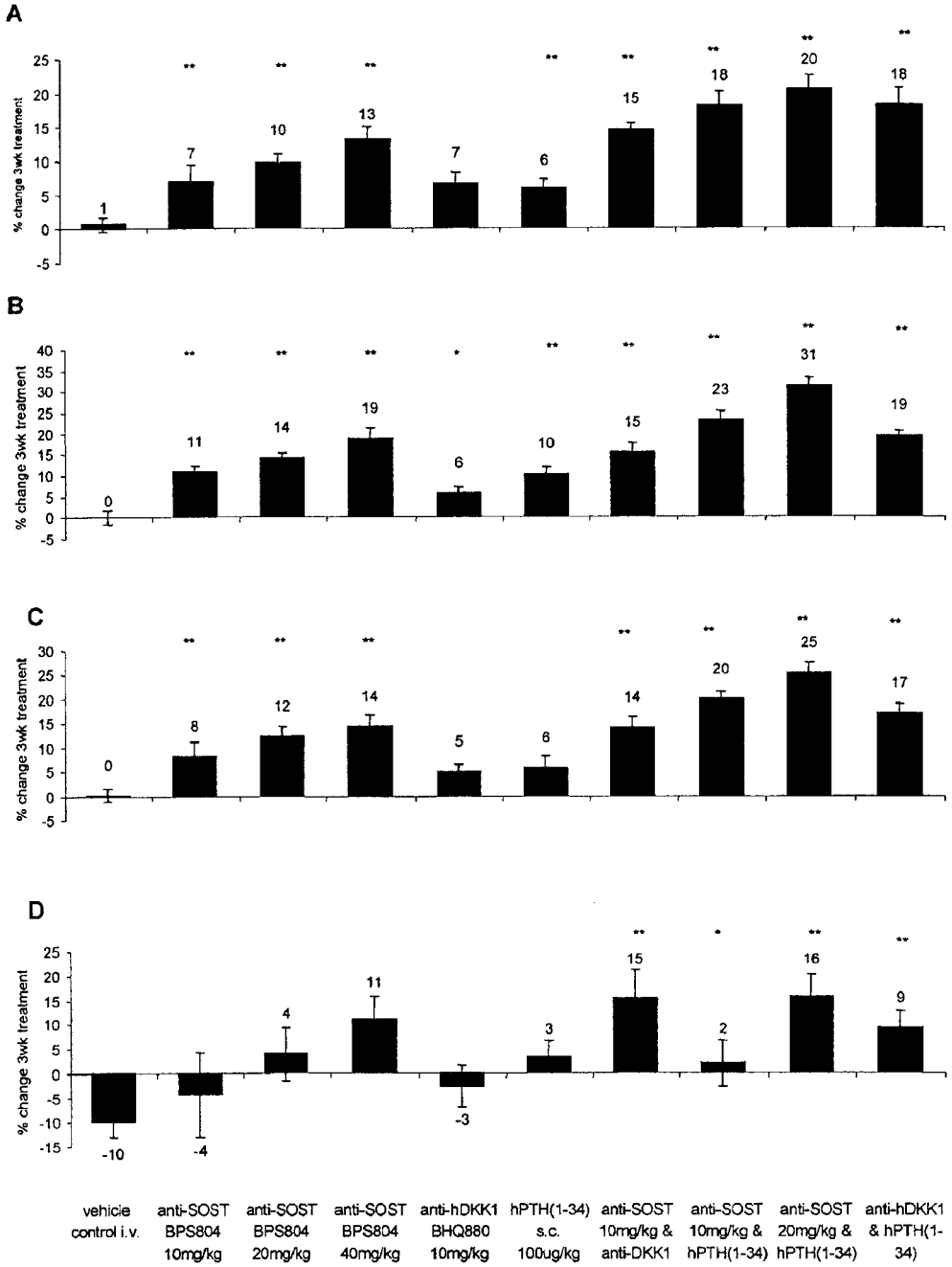

A
25.00
20.00
15.00
10.00
5.00
0.00
change in %
1%
4%
10%
15%
B
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
change in %
1%
2%
6%
*
10%
C
30.00
25.00
20.00
15.00
10.00
5.00
0.00
-5.00
change in %
-1%
*
4%
8%
*
18%
D
50.00
40.00
30.00
20.00
10.00
0.00
-10.00
-20.00
change in %
-6%
*
8%
14%
32%
control
control
alen pt
anti-SOST
10mg/kg
anti-SOST
10mg/kg
alen pt

Fig. 23


A
B
C
D
% change 3wk treatment
vehicle control i.v.
anti-SOST BPS804 10mg/kg
anti-SOST BPS804 20mg/kg
anti-SOST BPS804 40mg/kg
anti-hDKK1 BHQ880 10mg/kg
hPTH(1-34) s.c. 100ug/kg
anti-SOST 10mg/kg & anti-DKK1
anti-SOST 10mg/kg & hPTH(1-34)
anti-SOST 20mg/kg & hPTH(1-34)
anti-hDKK1 & hPTH(1-34)