DRAWINGS

1/10

Fig. 1

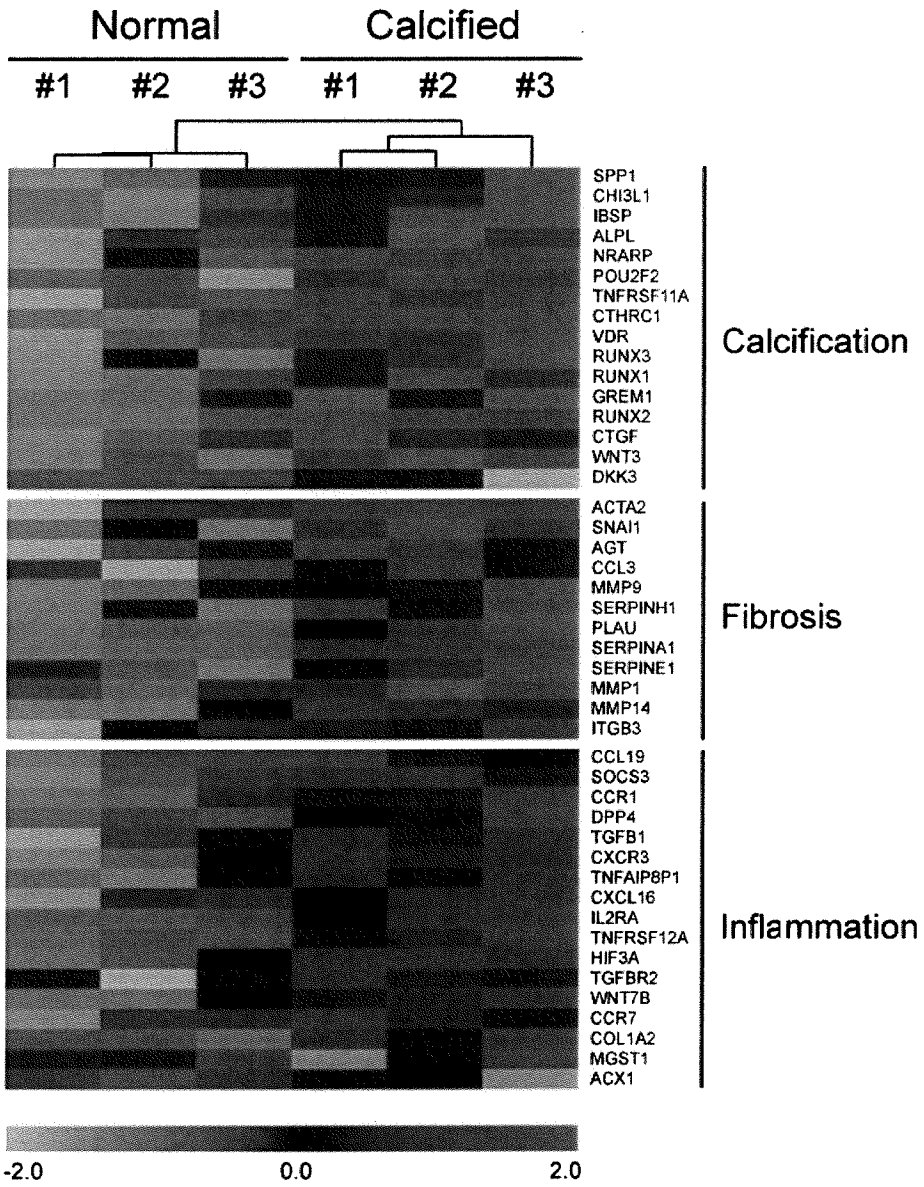


Fig. 2

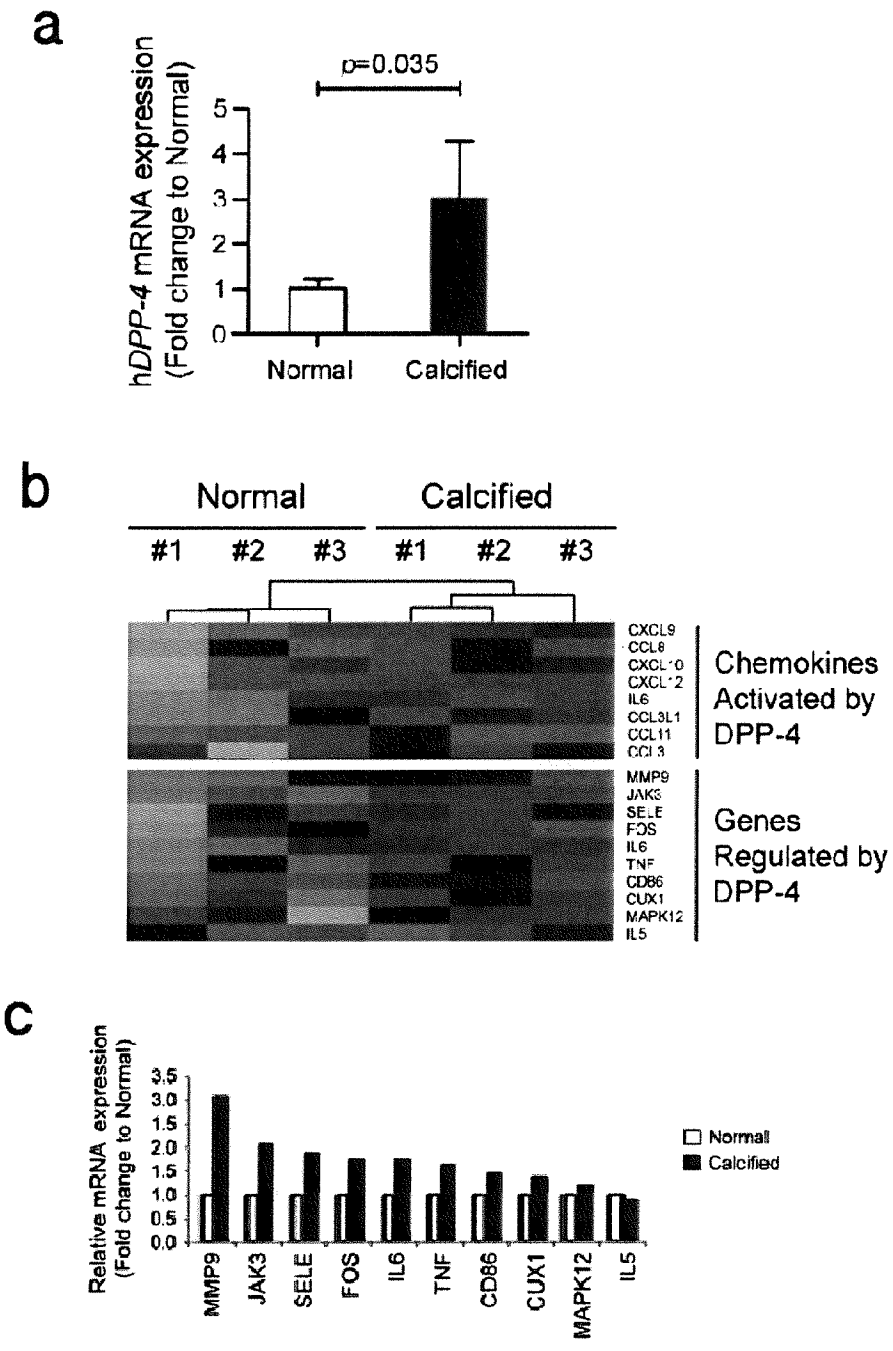

a
p=0.035
hDPP-4 mRNA expression
(Fold change to Normal)
5
4
3
2
1
0
Normal
Calcified
b
Normal
Calcified
#1
#2
#3
#1
#2
#3
CXCL9
CCL8
CXCL10
CXCL12
IL6
CCL3L1
CCL11
CCL3
Chemokines
Activated by
DPP-4
MMP9
JAK3
SELE
FOS
IL6
TNF
CD86
CUX1
MAPK12
IL5
Genes
Regulated by
DPP-4
c
Relative mRNA expression
(Fold change to Normal)
3.5
3.0
1.5
2.0
1.5
1.0
0.5
0.0
MMP9
JAK3
SELE
FOS
IL6
TNF
CD86
CUX1
MAPK12
IL5
Normal
Calcified

Fig. 3

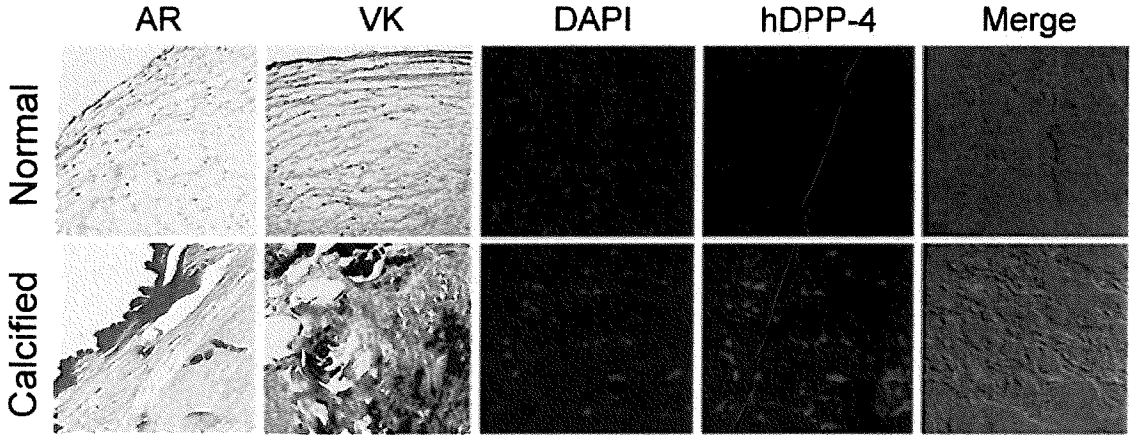

AR
VK
DAPI
hDPP-4
Merge
Normal
Calcified

Fig. 4

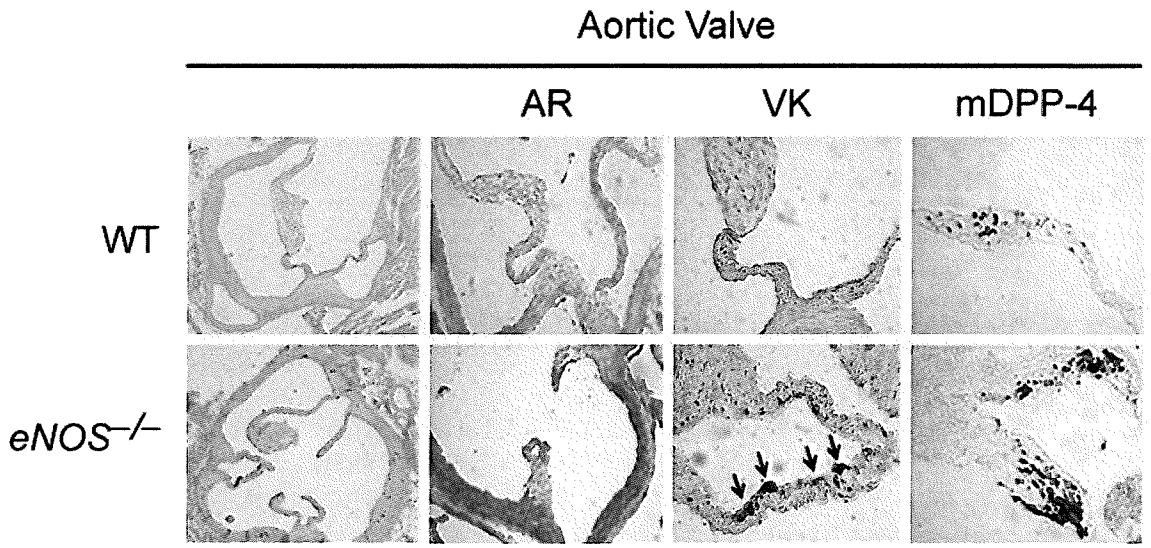

Aortic Valve
AR
VK
mDPP-4
WT
eNOS−/−

Fig. 5

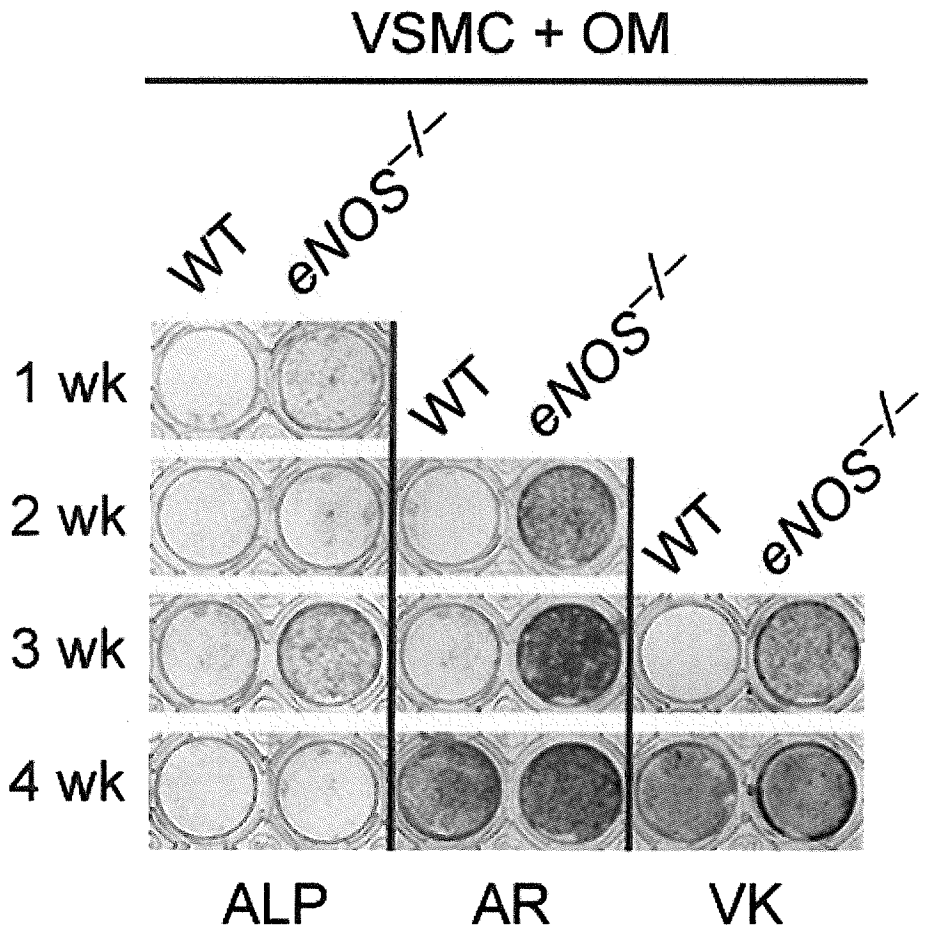


Fig.6

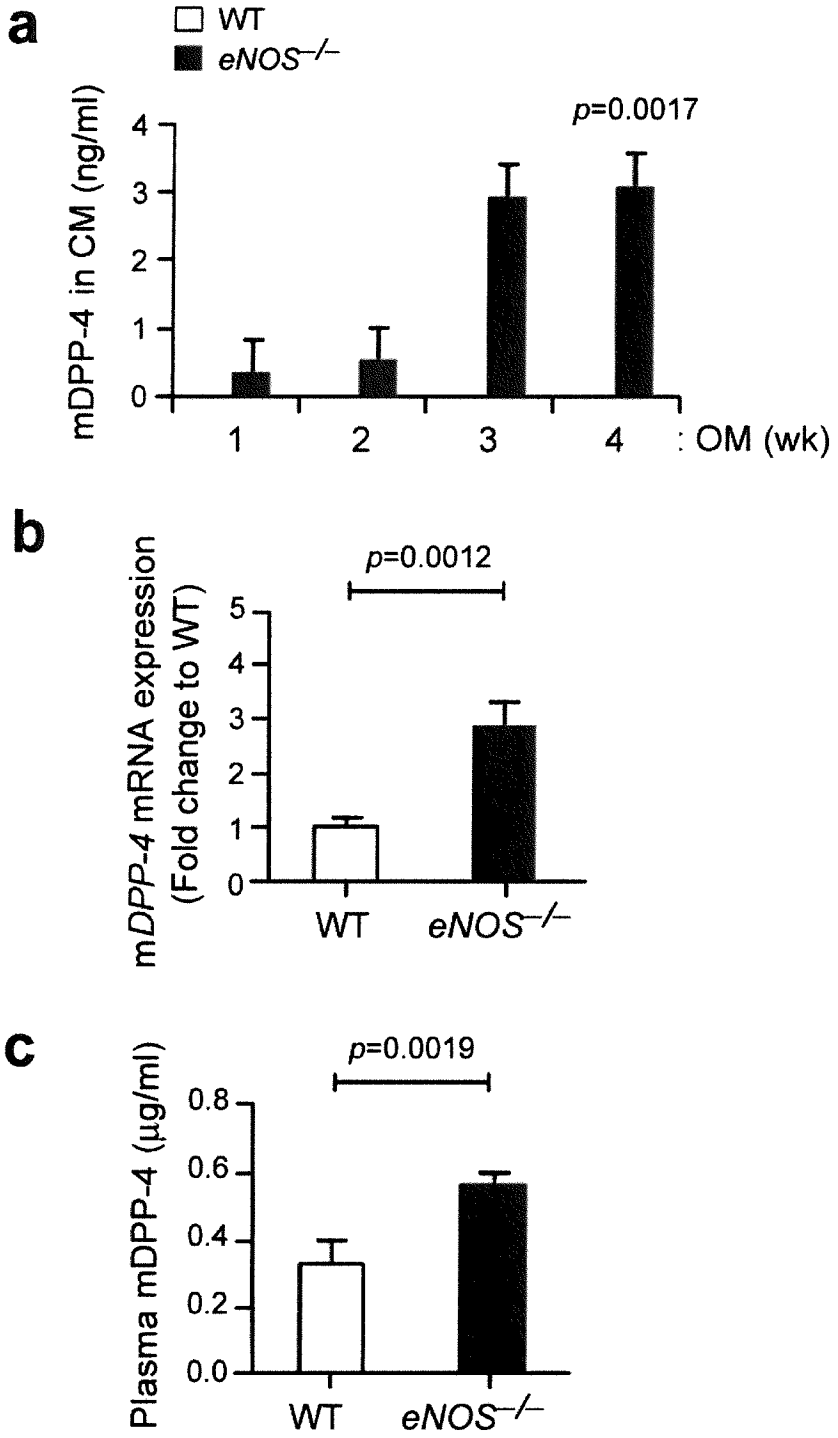

a
WT
eNOS−/−
p=0.0017
mDPP-4 in CM (ng/ml)
0
1
2
3
4
1
2
3
4
: OM (wk)
b
p=0.0012
mDPP-4 mRNA expression
(Fold change to WT)
0
1
2
3
4
5
WT
eNOS−/−
c
p=0.0019
Plasma mDPP-4 (μg/ml)
0.0
0.2
0.4
0.6
0.8
WT
eNOS−/−

Fig. 7

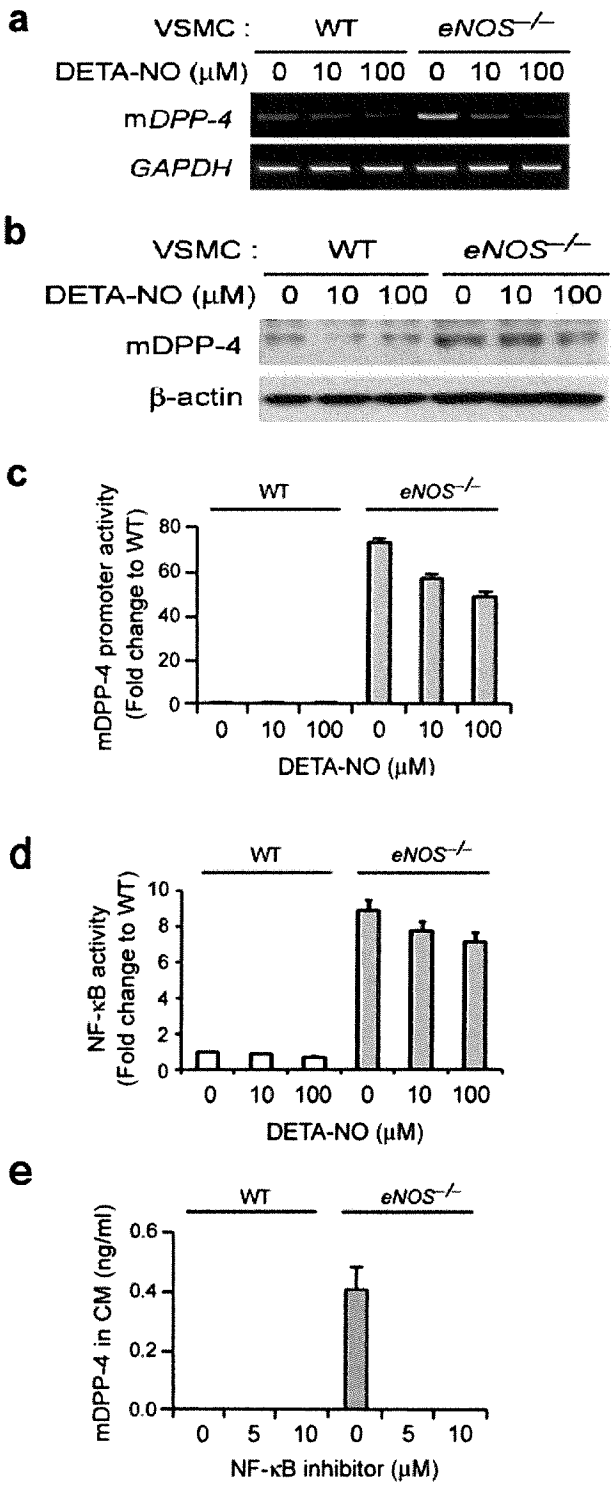

a
VSMC :
WT
eNOS−/−
DETA-NO (μM)
0 10 100 0 10 100
mDPP-4
GAPDH
b
VSMC :
WT
eNOS−/−
DETA-NO (μM)
0 10 100 0 10 100
mDPP-4
β-actin
c
WT
eNOS−/−
mDPP-4 promoter activity
(Fold change to WT)
80
60
40
20
0
0 10 100 0 10 100
DETA-NO (μM)
d
WT
eNOS−/−
NF-κB activity
(Fold change to WT)
10
8
6
4
2
0
0 10 100 0 10 100
DETA-NO (μM)
e
WT
eNOS−/−
mDPP-4 in CM (ng/ml)
0.6
0.4
0.2
0.0
0 5 10 0 5 10
NF-κB inhibitor (μM)

Fig. 8

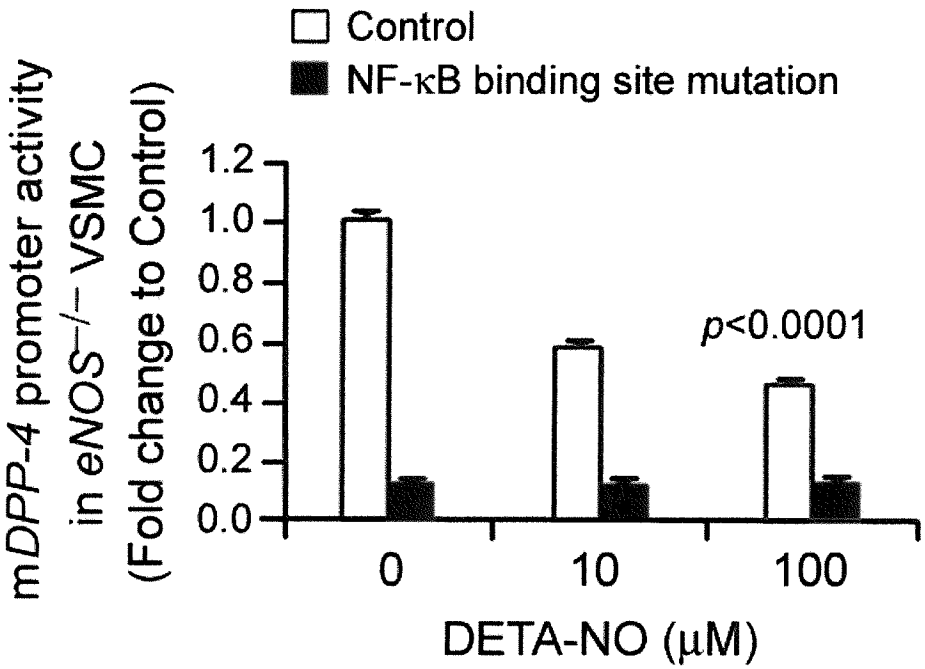

Control
NF-κB binding site mutation
mDPP-4 promoter activity in eNOS−/− VSMC (Fold change to Control)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
p<0.0001
0
10
100
DETA-NO (μM)

Fig. 9

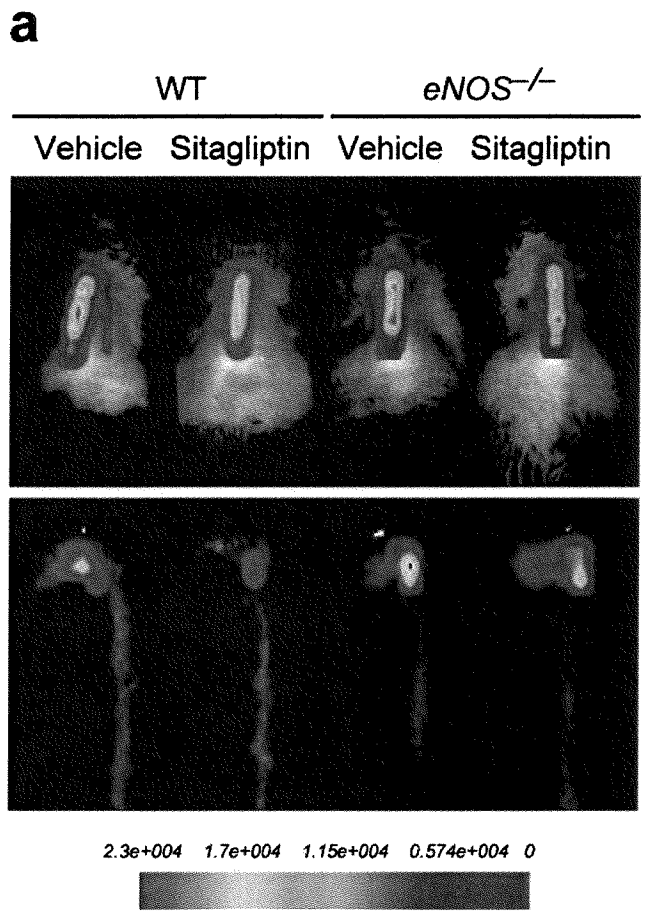

a
WT
eNOS−/−
Vehicle
Sitagliptin
Vehicle
Sitagliptin
2.3e+004
1.7e+004
1.15e+004
0.574e+004
0
b
Vehicle
Sitagliptin
p=0.0014
p=0.0012
Osteosense Intensity
(Fold change to Vehicle)
2.5
2.0
1.5
1.0
0.5
0.0
WT
eNOS−/−

Fig. 10

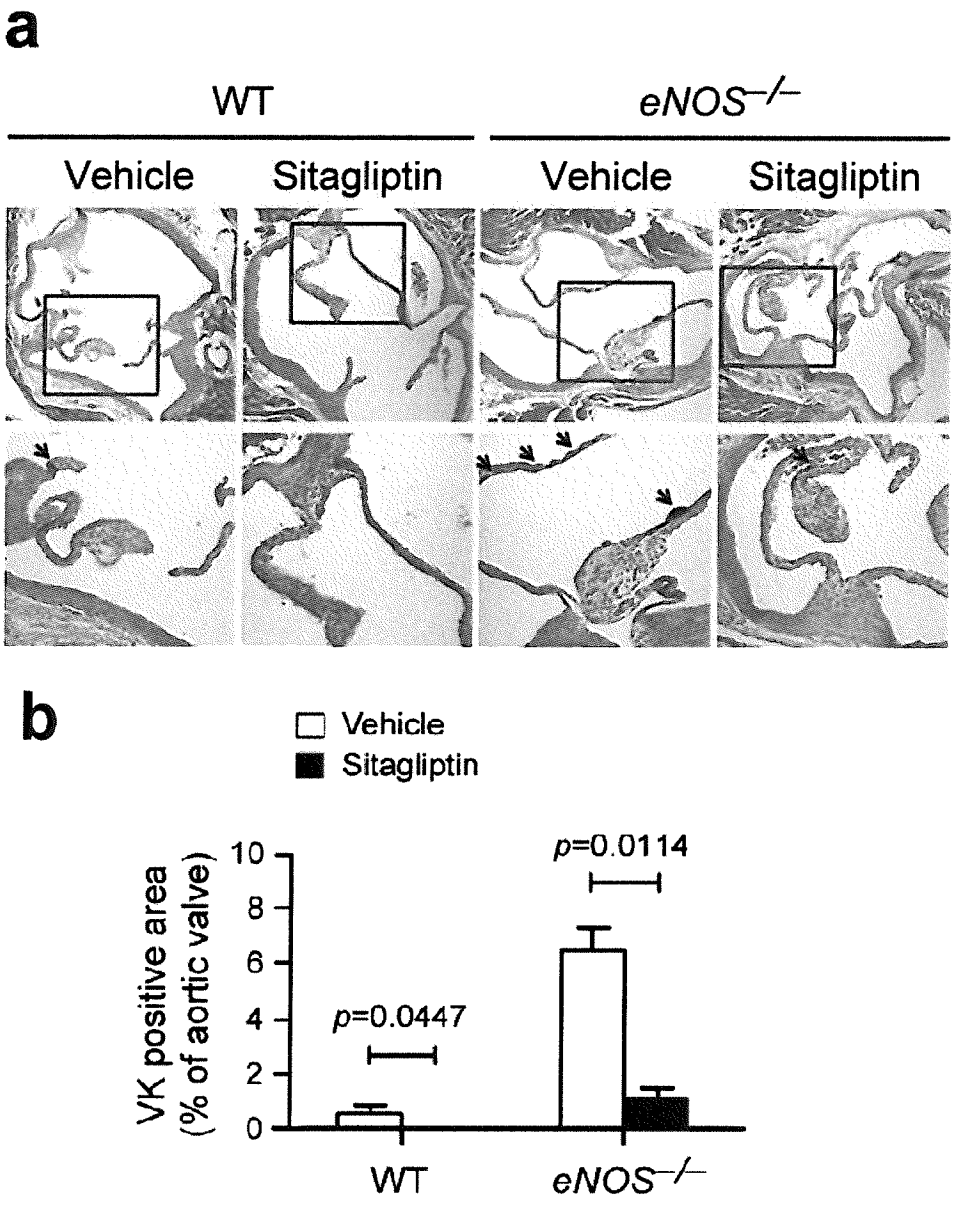
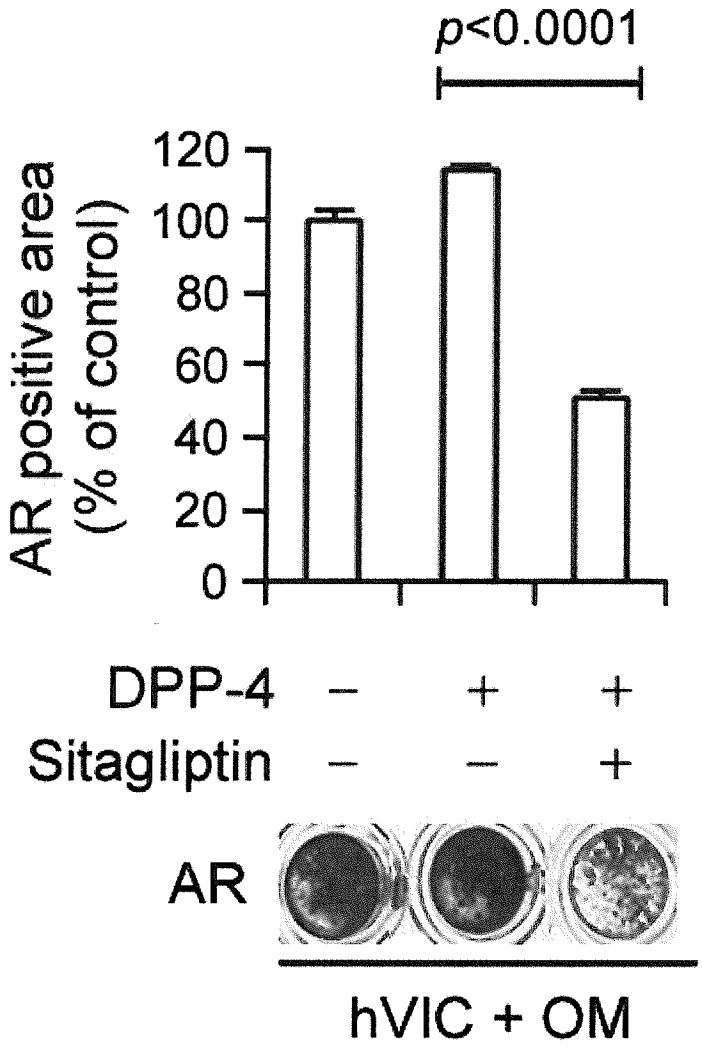

a
WT
eNOS−/−
Vehicle
Sitagliptin
Vehicle
Sitagliptin
b
Vehicle
Sitagliptin
VK positive area
(% of aortic valve)
10
8
6
4
2
0
p=0.0447
p=0.0114
WT
eNOS−/−

Fig. 11


p<0.0001
AR positive area
(% of control)
120
100
80
60
40
20
0
DPP-4 – + +
Sitagliptin – – +
AR
hVIC + OM

PF-B1928_ST25

SEQUENCE LISTING

<110> THE ASAN FOUNDATION
UNIVERSITY OF ULSAN FOUNDATION FOR INDUSTRY COOPERATION

<120> COMPOSITION FOR PREVENTING OR TREATING VALVE CALCIFICATION, CONTAINING DPP-4 INHIBITOR

<130> PF-B1928

<140> PCT/KR2015/001902
<141> 2015-02-27

<160> 2

<170> PatentIn version 3.5

<210> 1
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 1
cagccagata acatgccaca cccaacccct tc 32

<210> 2
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 2
gaaggggttg ggtgtggcat gttatctggc tg 32