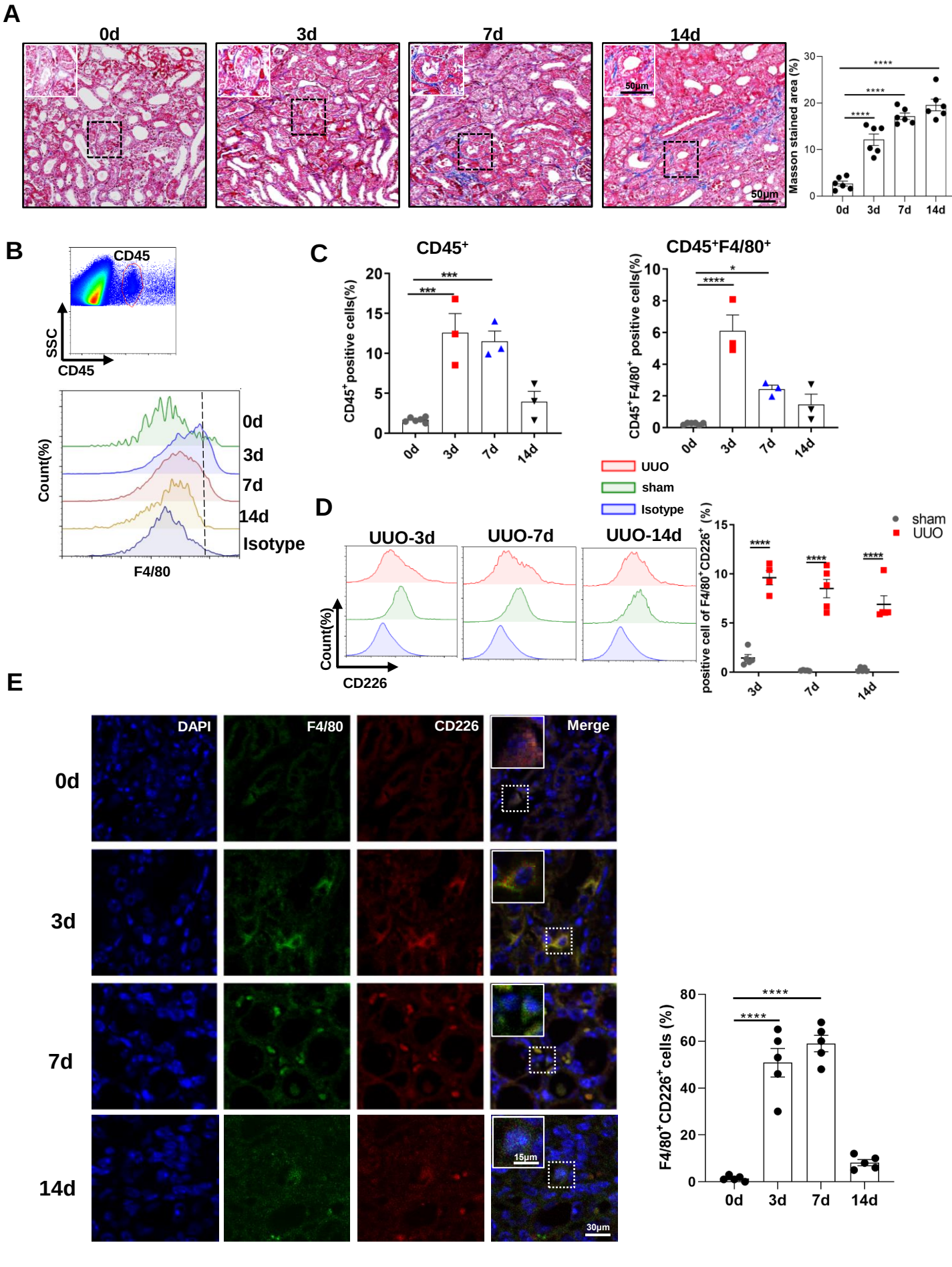
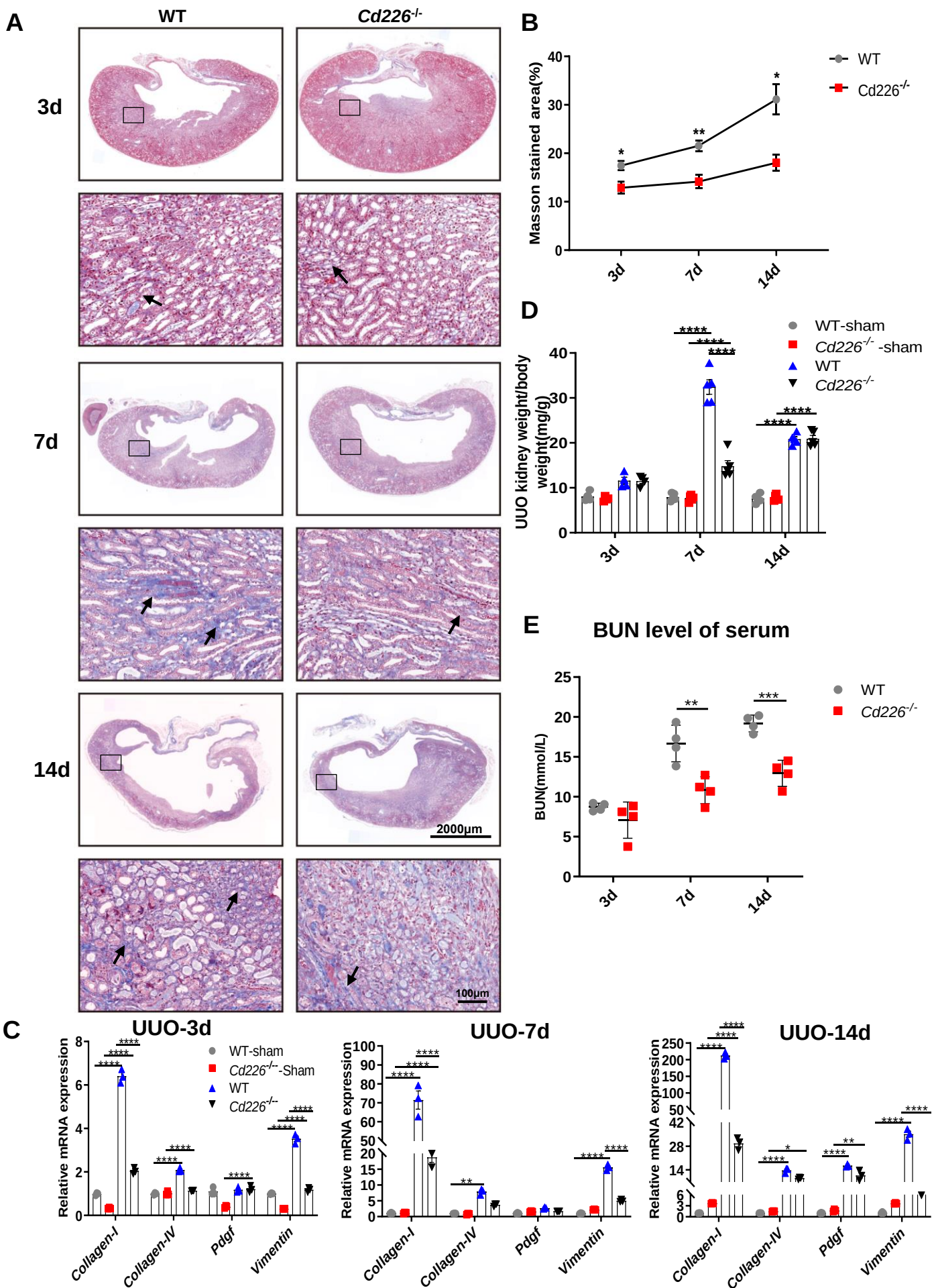
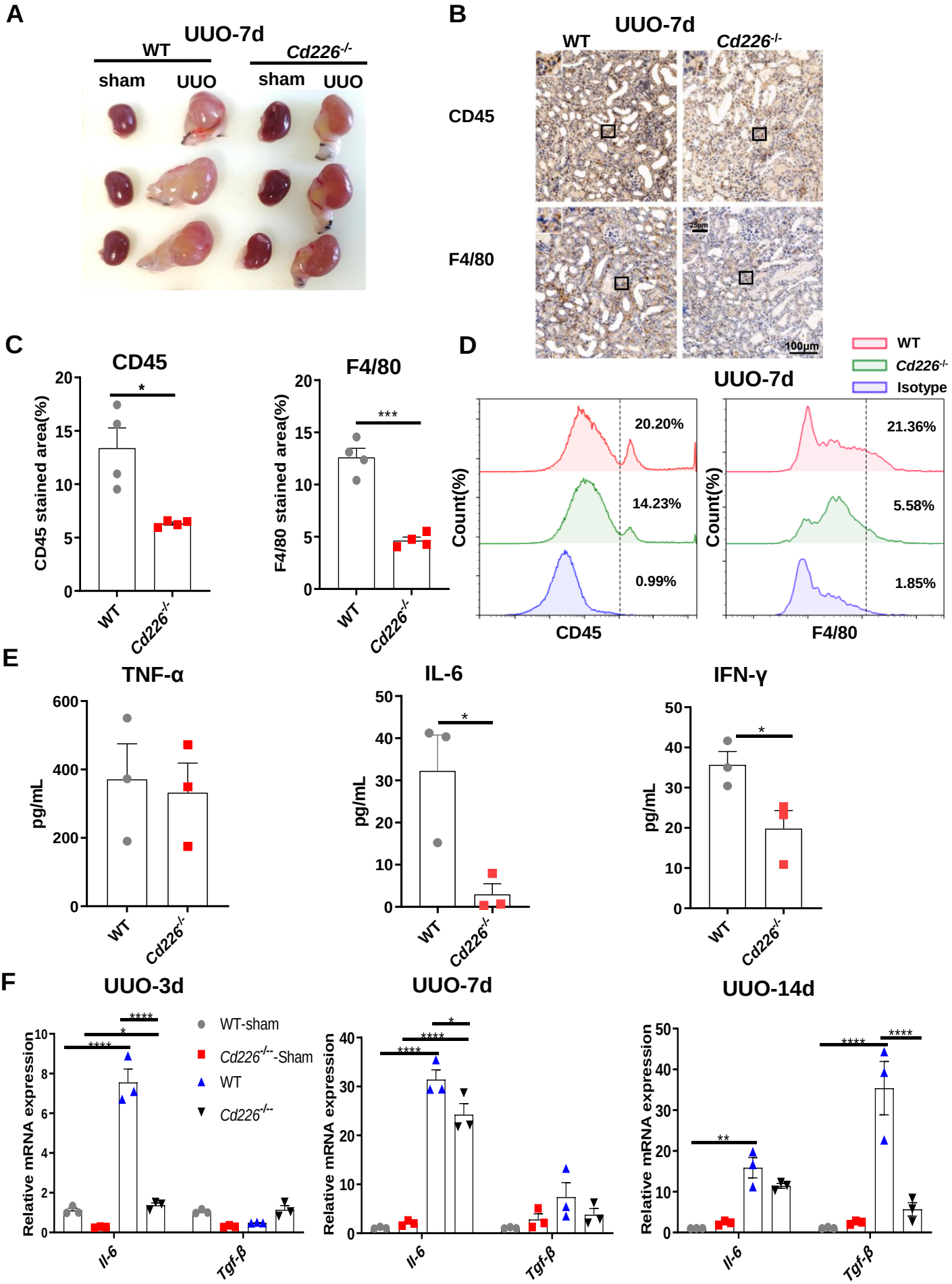
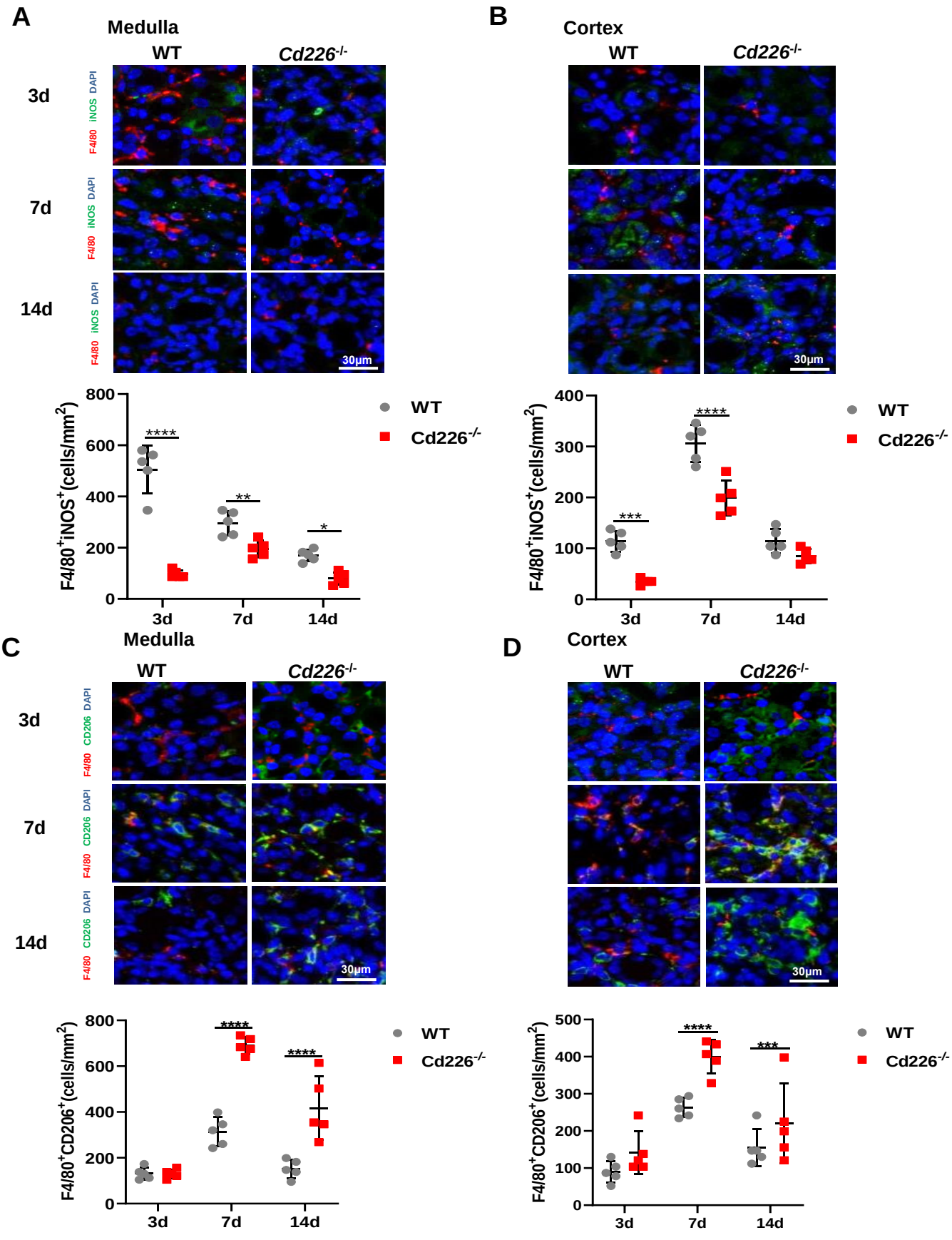
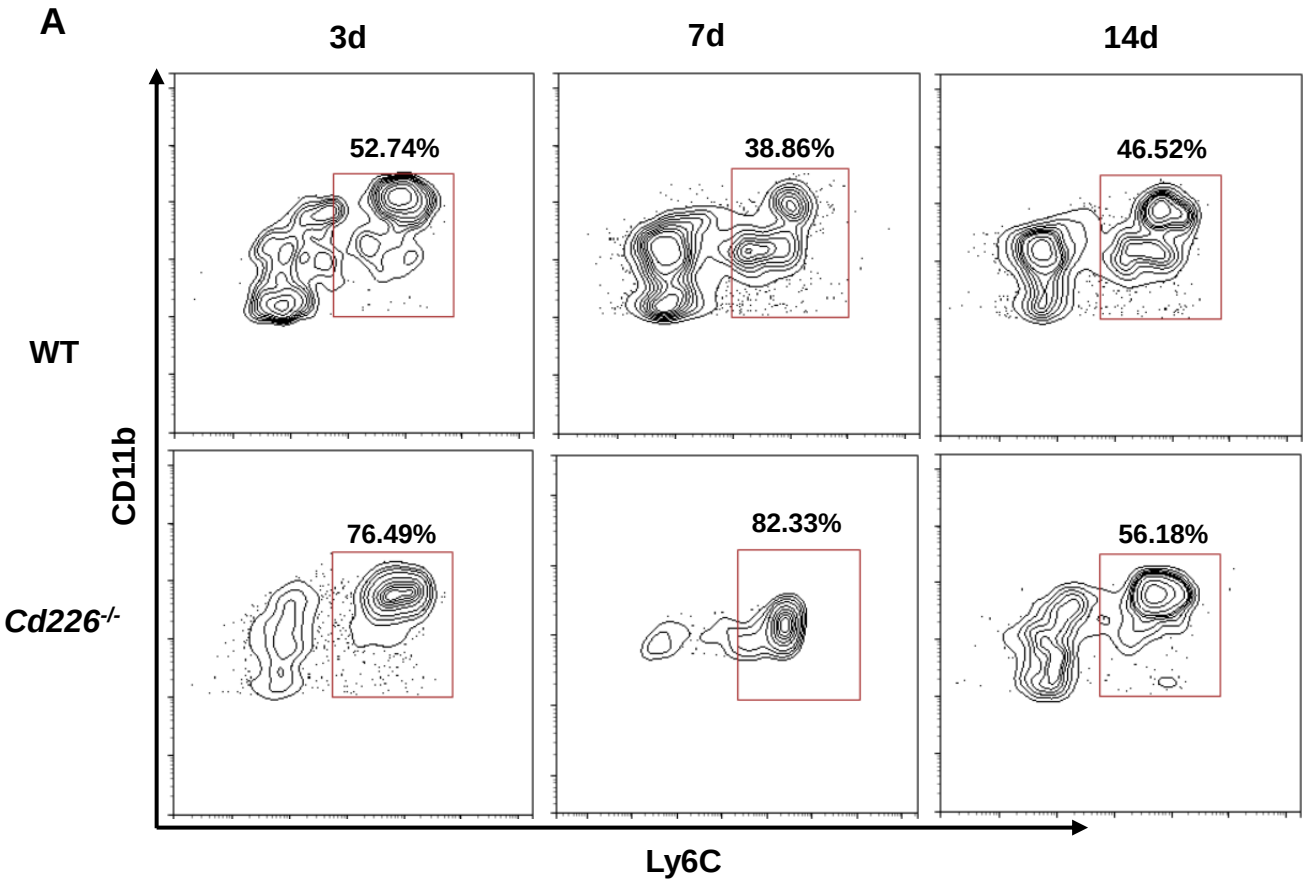
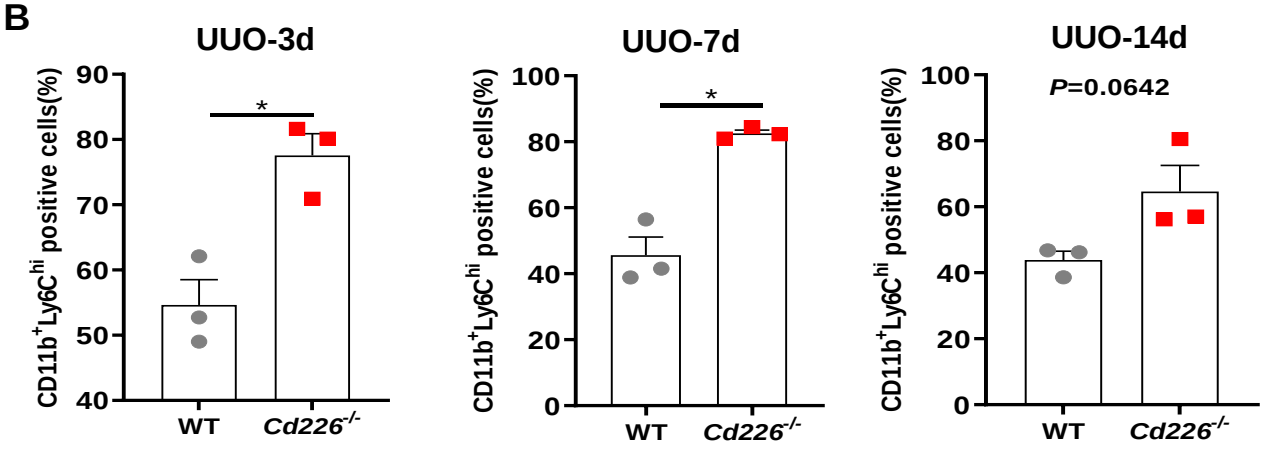

A
0d
3d
7d
14d
50μm
Masson stained area (%)
B
CD45
SSC
CD45
Count(%)
0d
3d
7d
14d
Isotype
F4/80
C
CD45+
CD45+positive cells(%)
CD45+F4/80+
CD45+F4/80+ positive cells(%)
UUO
sham
Isotype
D
UUO-3d
UUO-7d
UUO-14d
Count(%)
CD226
positive cell of F4/80+CD226+ (%)
sham
UUO
E
DAPI
F4/80
CD226
Merge
15μm
30μm
F4/80+CD226+cells (%)

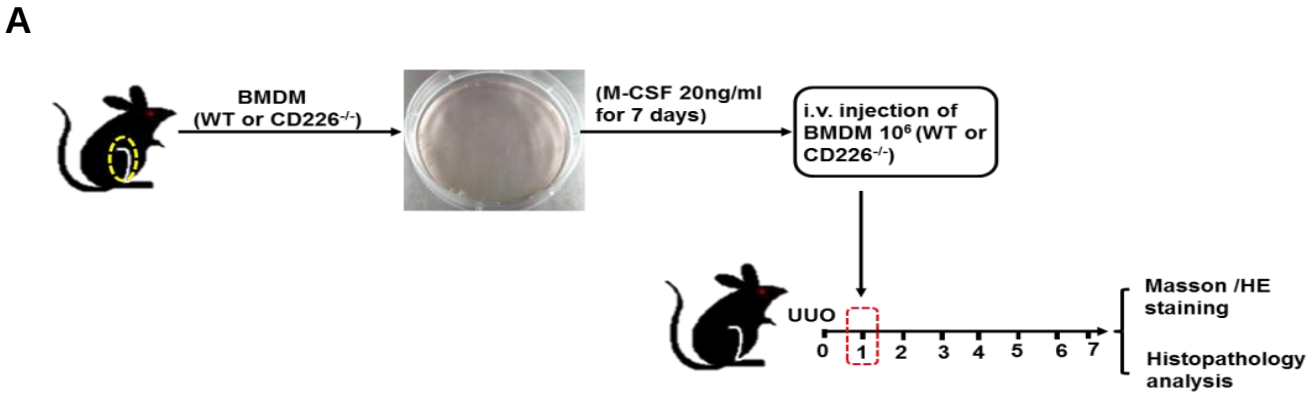

A
WT
Cd226-/-
3d
7d
14d
2000μm
100μm
B
Masson stained area(%)
WT
Cd226-/-
3d
7d
14d
D
UUO kidney weight/body weight(mg/g)
WT-sham
Cd226-/- -sham
WT
Cd226-/-
E
BUN level of serum
BUN(mmol/L)
WT
Cd226-/-
C
UUO-3d
UUO-7d
UUO-14d
Relative mRNA expression
WT-sham
Cd226-/--Sham
WT
Cd226-/-
Collagen-I
Collagen-IV
Pdgf
Vimentin

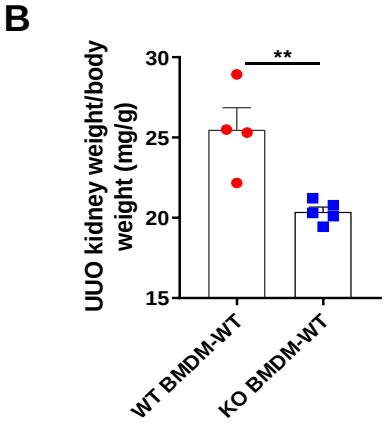

A
UUO-7d
WT
Cd226-/-
sham
UUO
sham
UUO
B
UUO-7d
WT
Cd226-/-
CD45
F4/80
25μm
100μm
C
CD45
CD45 stained area(%)
*
WT
Cd226-/-
F4/80
F4/80 stained area(%)
***
WT
Cd226-/-
D
WT
Cd226-/-
Isotype
UUO-7d
20.20%
14.23%
0.99%
Count(%)
CD45
21.36%
5.58%
1.85%
Count(%)
F4/80
E
TNF-α
pg/mL
WT
Cd226-/-
IL-6
pg/mL
*
WT
Cd226-/-
IFN-γ
pg/mL
*
WT
Cd226-/-
F
UUO-3d
UUO-7d
UUO-14d
WT-sham
Cd226-/--Sham
WT
Cd226-/-
Relative mRNA expression
Il-6
Tgf-β
Relative mRNA expression
Il-6
Tgf-β
Relative mRNA expression
Il-6
Tgf-β

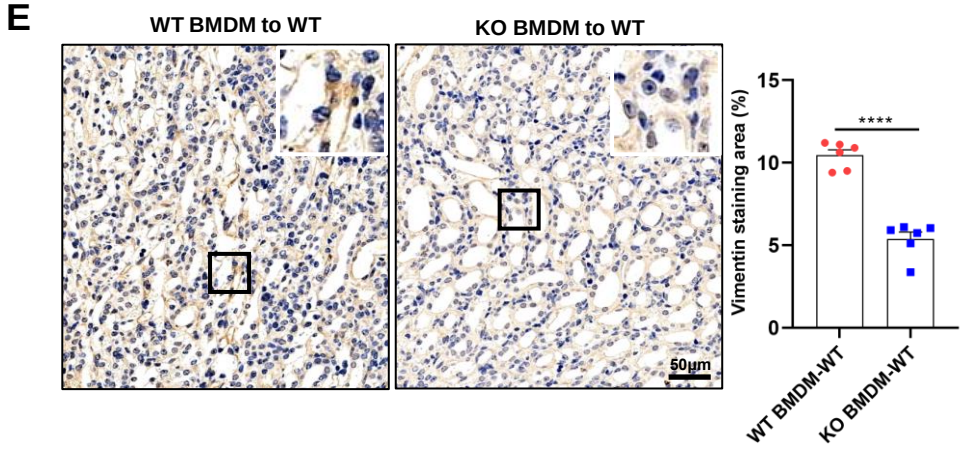

A
Medulla
WT
Cd226-/-
3d
7d
14d
F4/80 iNOS DAPI
30μm
F4/80+iNOS+(cells/mm2)
WT
Cd226-/-
****
**
*
B
Cortex
***
C
Medulla
F4/80 CD206 DAPI
F4/80+CD206+(cells/mm2)
D
Cortex

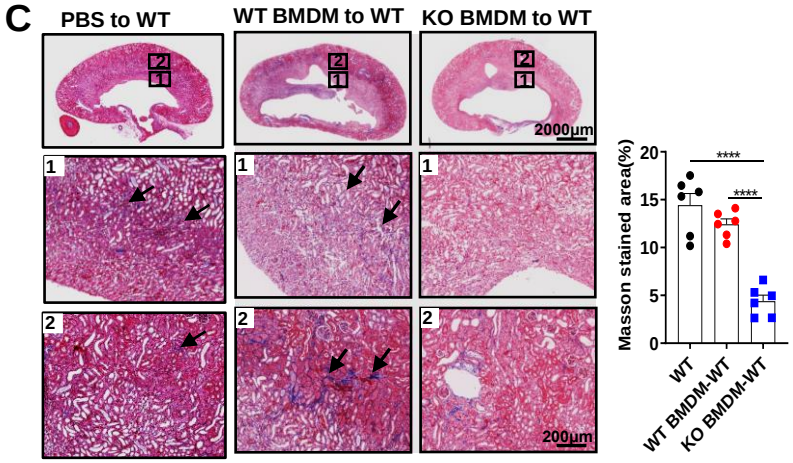

A
3d
7d
14d
52.74%
38.86%
46.52%
WT
CD11b
76.49%
82.33%
56.18%
Cd226-/-
Ly6C

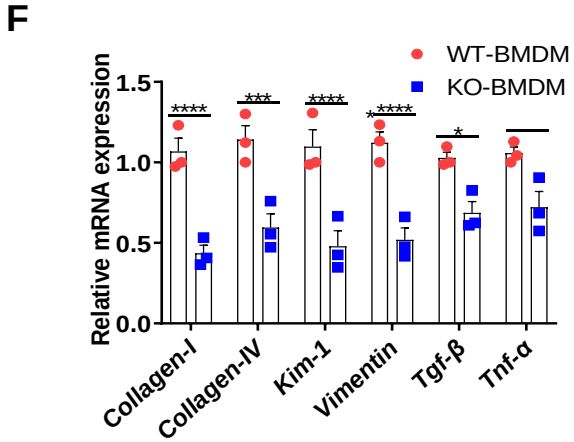

B
UUO-3d
UUO-7d
UUO-14d
CD11b+Ly6Chi positive cells(%)
90
80
70
60
50
40
100
20
0
*
P=0.0642
WT
Cd226-/-

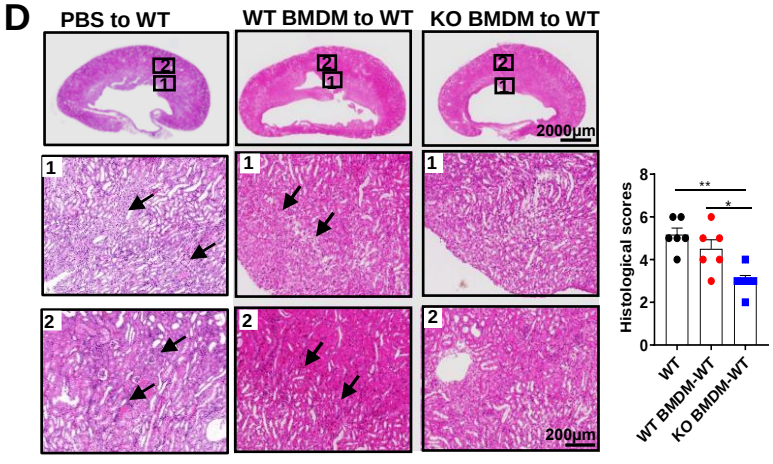

A
BMDM
(WT or CD226-/-)
(M-CSF 20ng/ml
for 7 days)
i.v. injection of
BMDM 10⁶ (WT or
CD226-/-)
UUO
0 1 2 3 4 5 6 7
Masson /HE
staining
Histopathology
analysis

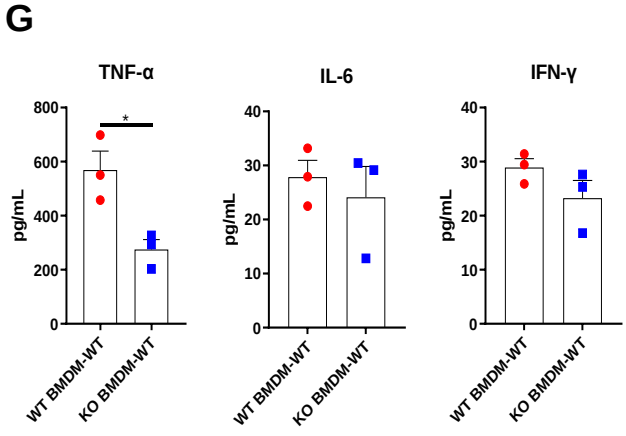

B
UUO kidney weight/body
weight (mg/g)
30
25
20
15
**
WT BMDM-WT
KO BMDM-WT


E
WT BMDM to WT
KO BMDM to WT
50μm
Vimentin staining area (%)
15
10
5
0
****
WT BMDM-WT
KO BMDM-WT

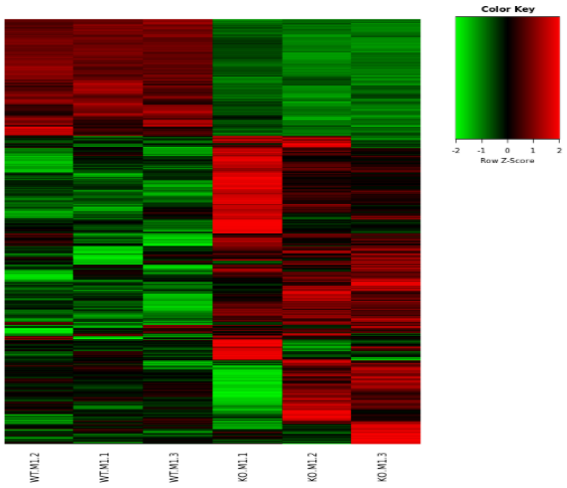

C
PBS to WT
WT BMDM to WT
KO BMDM to WT
2000μm
200μm
Masson stained area(%)
20
15
10
5
0
****
****
WT
WT BMDM-WT
KO BMDM-WT


F
WT-BMDM
KO-BMDM
Relative mRNA expression
1.5
1.0
0.5
0.0
****
***
****
****
*
Collagen-I
Collagen-IV
Kim-1
Vimentin
Tgf-β
Tnf-α

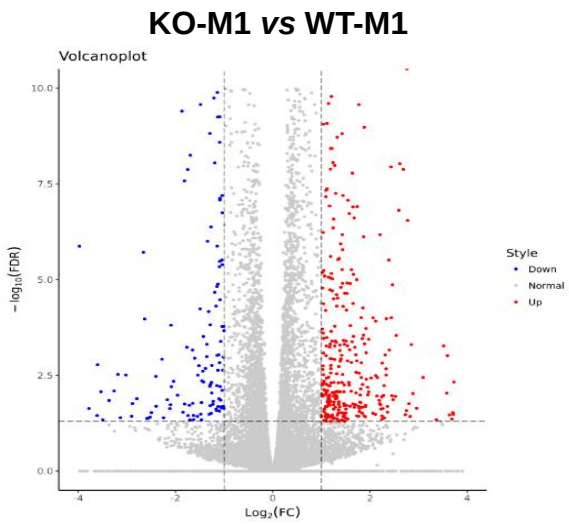

D
PBS to WT
WT BMDM to WT
KO BMDM to WT
2000μm
200μm
Histological scores
8
6
4
2
0
**
*
WT
WT BMDM-WT
KO BMDM-WT


G
TNF-α
IL-6
IFN-γ
pg/mL
800
600
400
200
0
40
30
20
10
0
*
WT BMDM-WT
KO BMDM-WT

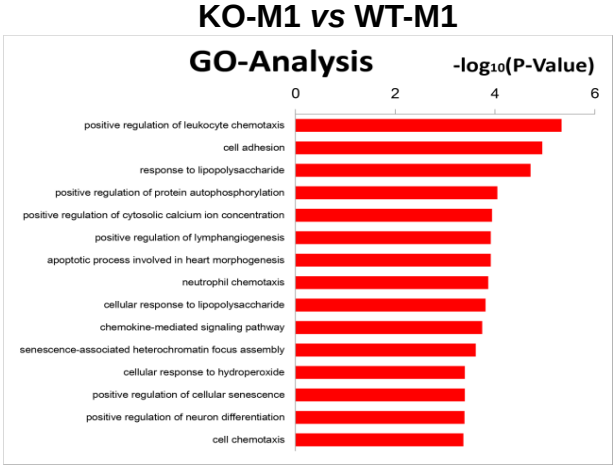
A


Color Key
-2
-1
0
1
2
Row Z-Score
WT.M1.2
WT.M1.1
WT.M1.3
KO.M1.1
KO.M1.2
KO.M1.3

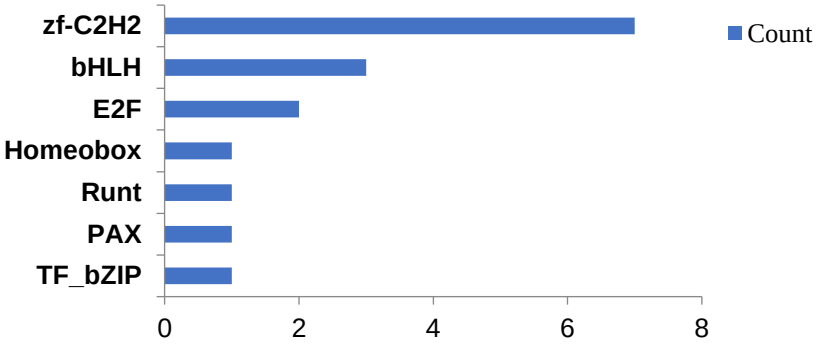
B


KO-M1 vs WT-M1
Volcanoplot
10.0
7.5
5.0
2.5
0.0
−log10(FDR)
-4
-2
0
2
4
Log2(FC)
Style
Down
Normal
Up

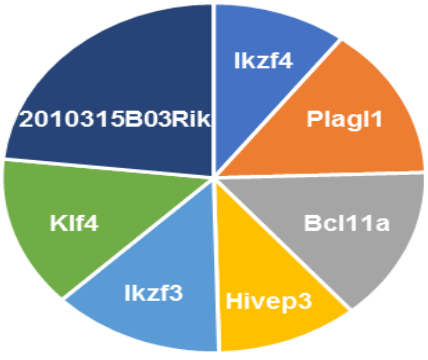
C

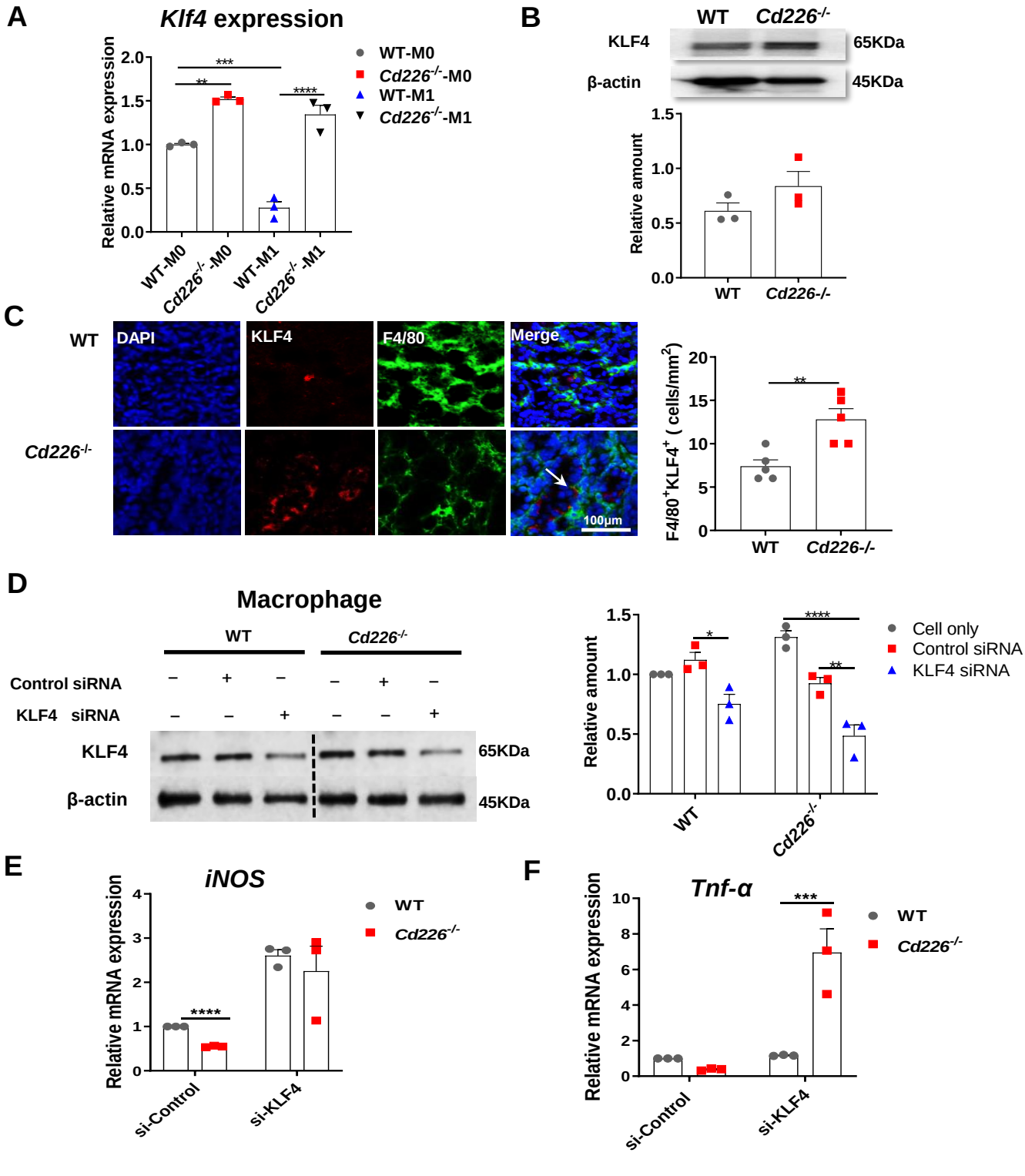

KO-M1 vs WT-M1
GO-Analysis
-log10(P-Value)
0
2
4
6
positive regulation of leukocyte chemotaxis
cell adhesion
response to lipopolysaccharide
positive regulation of protein autophosphorylation
positive regulation of cytosolic calcium ion concentration
positive regulation of lymphangiogenesis
apoptotic process involved in heart morphogenesis
neutrophil chemotaxis
cellular response to lipopolysaccharide
chemokine-mediated signaling pathway
senescence-associated heterochromatin focus assembly
cellular response to hydroperoxide
positive regulation of cellular senescence
positive regulation of neuron differentiation
cell chemotaxis

D


TF(Transcription factors) family
zf-C2H2
bHLH
E2F
Homeobox
Runt
PAX
TF_bZIP
0
2
4
6
8
Count

E


Log2 Fold Chang
Ikzf4
Plagl1
2010315B03Rik
Klf4
Bcl11a
Ikzf3
Hivep3


A
Klf4 expression
Relative mRNA expression
WT-M0
Cd226-/--M0
WT-M1
Cd226-/--M1
B
WT
Cd226-/-
KLF4
65KDa
β-actin
45KDa
Relative amount
C
WT
Cd226-/-
DAPI
KLF4
F4/80
Merge
100μm
F4/80+KLF4+ (cells/mm2)
D
Macrophage
Control siRNA
KLF4 siRNA
Cell only
Control siRNA
KLF4 siRNA
E
iNOS
si-Control
si-KLF4
F
Tnf-α