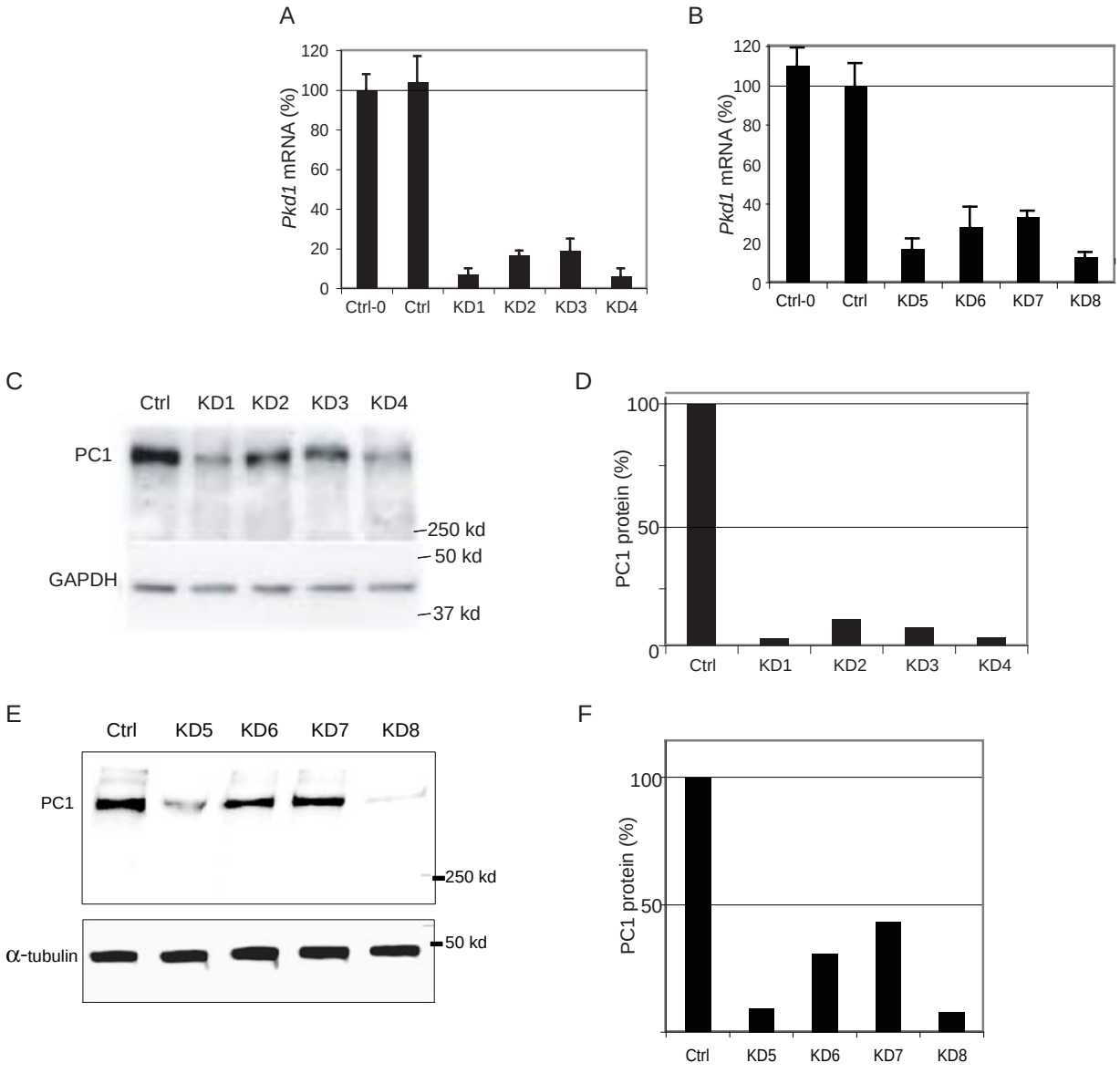
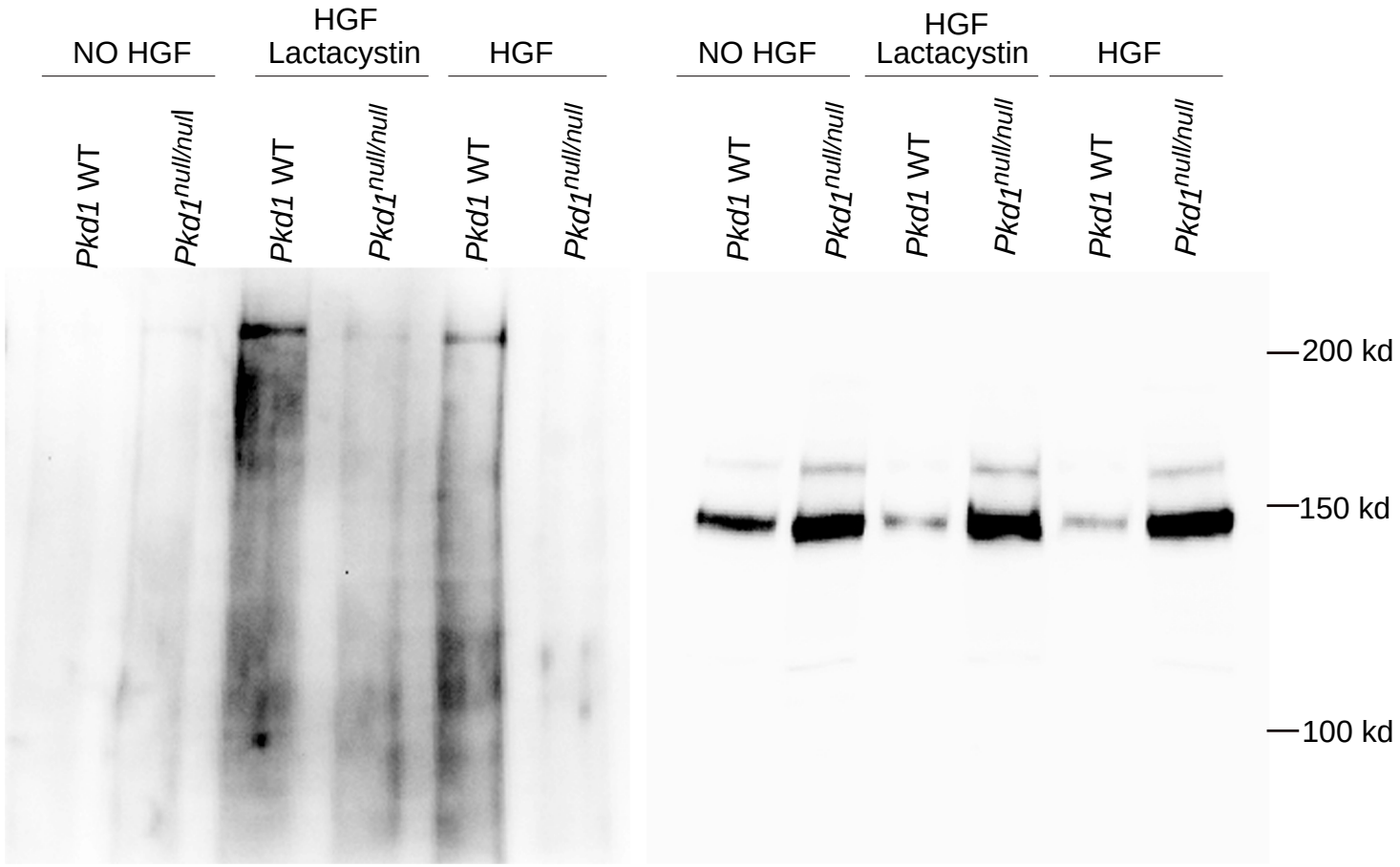
Suppl Fig 1


A
Pkd1 mRNA (%)
120
100
80
60
40
20
0
Ctrl-0
Ctrl
KD1
KD2
KD3
KD4
B
Pkd1 mRNA (%)
120
100
80
60
40
20
0
Ctrl-0
Ctrl
KD5
KD6
KD7
KD8
C
Ctrl
KD1
KD2
KD3
KD4
PC1
GAPDH
250 kd
50 kd
37 kd
D
PC1 protein (%)
100
50
0
Ctrl
KD1
KD2
KD3
KD4
E
Ctrl
KD5
KD6
KD7
KD8
PC1
250 kd
α-tubulin
50 kd
F
PC1 protein (%)
100
50
Ctrl
KD5
KD6
KD7
KD8

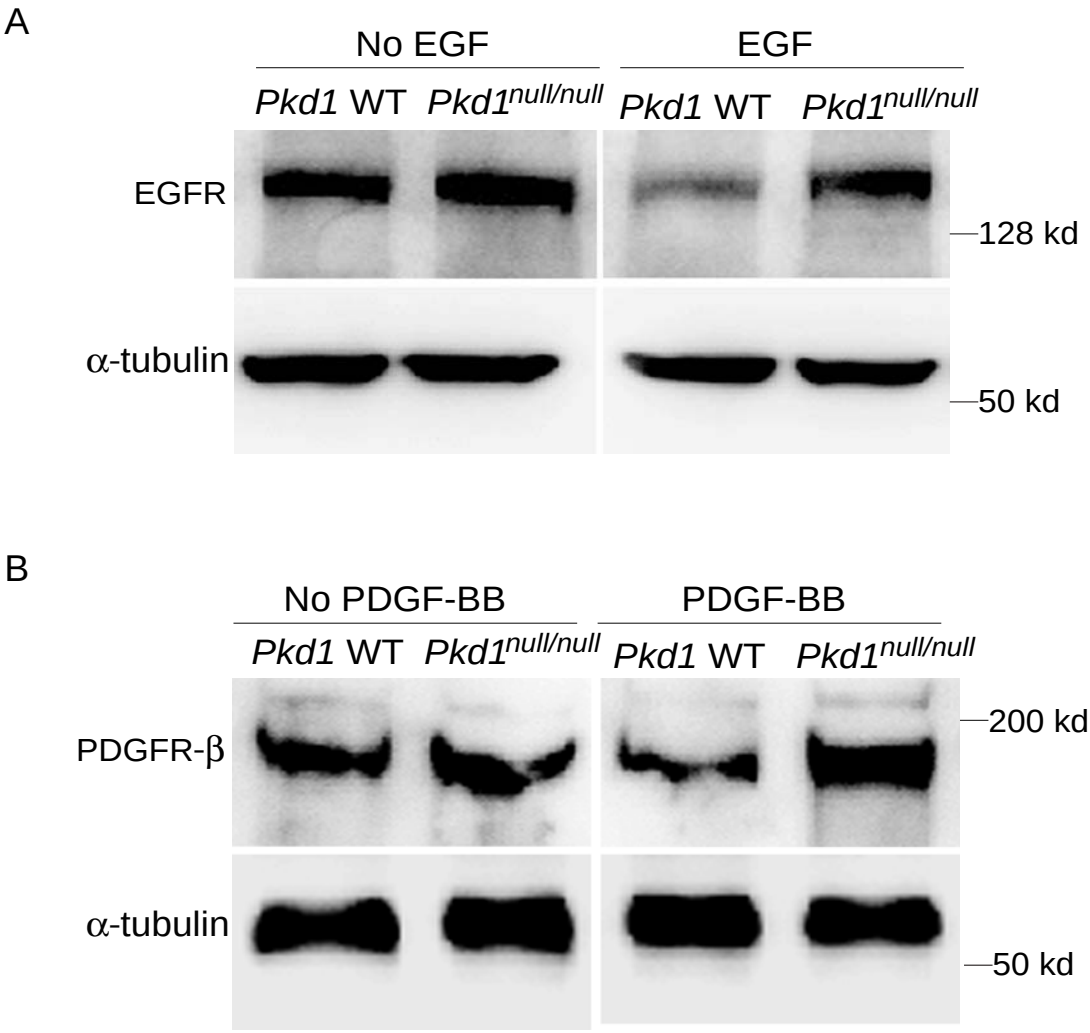
Suppl Fig 2

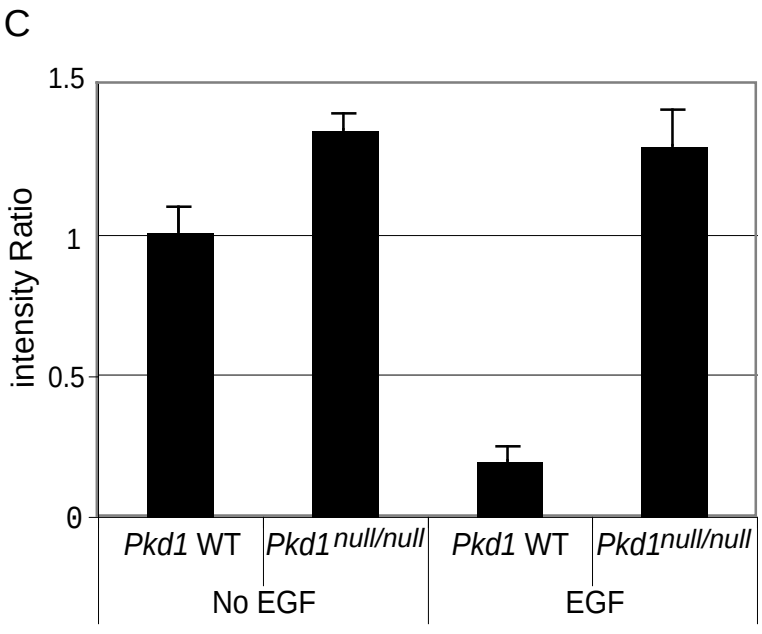


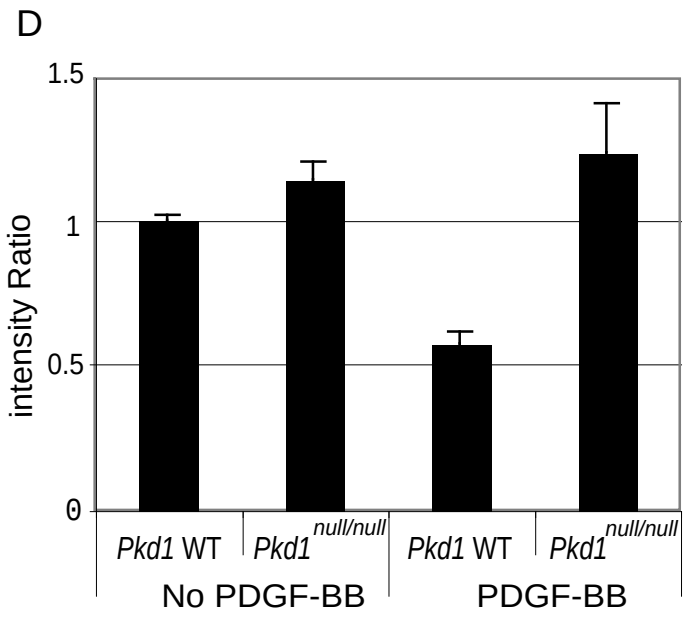
Blot α Ubiquitin

Blot α c-MET

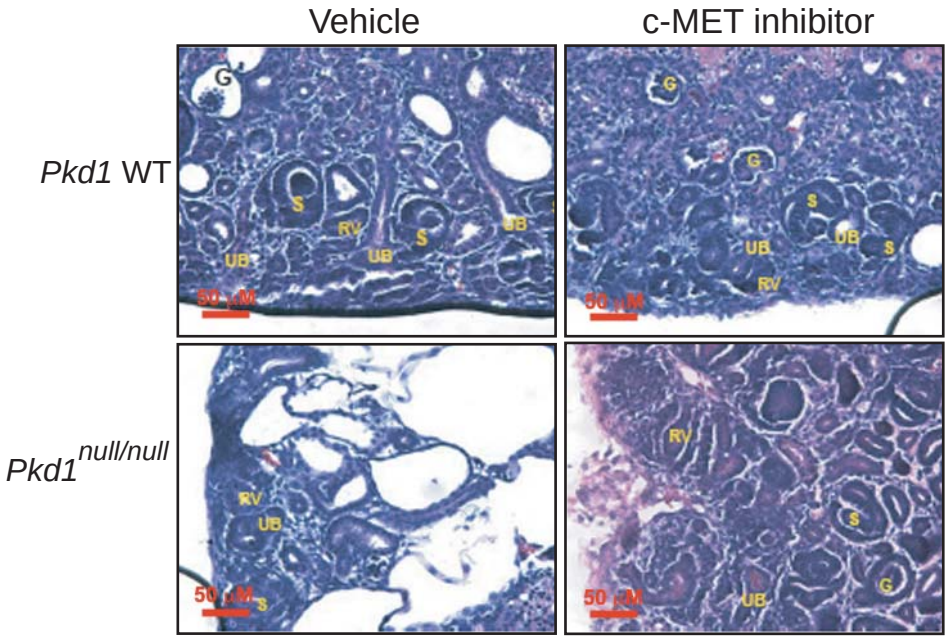
Suppl Fig 3


A
No EGF
EGF
Pkd1 WT
Pkd1null/null
Pkd1 WT
Pkd1null/null
EGFR
128 kd
α-tubulin
50 kd
B
No PDGF-BB
PDGF-BB
Pkd1 WT
Pkd1null/null
Pkd1 WT
Pkd1null/null
PDGFR-β
200 kd
α-tubulin
50 kd


C
1.5
1
0.5
0
intensity Ratio
Pkd1 WT
Pkd1null/null
Pkd1 WT
Pkd1null/null
No EGF
EGF


D
1.5
1
0.5
0
intensity Ratio
Pkd1 WT
Pkd1null/null
Pkd1 WT
Pkd1null/null
No PDGF-BB
PDGF-BB

Suppl Fig 4



Supplementary Figure 1 *Pkd1* knockdown in immortalized kidney collecting duct cells. (a,c,d) *Pkd1* knockdown in α3 integrin WT cells; (b,e,f) *Pkd1* knockdown in α3 integrin -/- cells. Knockdown efficiency was analyzed by RT-qPCR, by normalized to 18S RNA (a,b). The control cells include both negative control cells infected with an empty pLKO.1 lentiviral vector (Ctrl) and collecting duct cells without lentivirus infection (Ctrl 0). Western blots (c,e) confirm decreased expression of polycystin-1 in *Pkd1* knockdown cells, quantified by densitometry analysis (d,f), with up to 89%-97% knockdown.

Supplementary Figure 2 Effect of proteosomal inhibitor on c-Met. Serum starved cells were untreated (no HGF) or treated with HGF or HGF + Lacatacystin. Extracts were immunoprecipitated with anti-c-Met and western blotted with anti-ubiquitin. A c-Met reblot is shown on the right. The proteosomal inhibitor lacatacystin will prevent proteosomal degradation of ubiqutinated c-Met, and demonstrate higher molecular weight species. Increased signal in the *Pkd1WT* lanes demonstrates that there is much greater ubiquitination of c-Met in *Pkd1WT* cells compared with *Pkd1*$^{null/null}$ cells.

Supplementary Figure 3 Impaired degradation of EGFR and PDGFR-β in *Pkd1*$^{null/null}$ cells after stimulation with ligand. Serum starved *Pkd1WT* cells or *Pkd1*$^{null/null}$ cells were stimulated with EGF (top panels) or PDGF-BB (bottom panels) and western blotted with anti-EGFR (top panels) or anti-PDGFR-β. Reblots with anti-α-tubulin are shown. EGFR and PDGFR-β showed less degradation after stimulation of *Pkd1*$^{null/null}$ cells compared

with *Pkd1WT* cells. Quantification is shown in below the western blots.

Supplementary Figure 4 High power magnification of HE staining on *Pkd1 WT* and *Pkd1*$^{null/null}$ embryonic kidneys after c-Met inhibitor or control vehicle treatment. Representative structures found in normal nephrogenesis are designated: “UB”, ureteric bud derivative branch; “RV”, renal vesicle; “S”, S-shaped body; “G”, glomerulus. Cyst formation was decreased by c-Met inhibitor treatment in the *Pkd1*$^{null/null}$ kidneys, with no apparent effect on nephrogenesis. These are representative of three independent experiments.