

OMTN, Volume 36

Supplemental information

Axl deficiency promotes preeclampsia and vascular malformations in mice

Chan Zhou, Yunqing Zhu, Liang Zhang, Miaomiao Zhao, and Cong Zhang

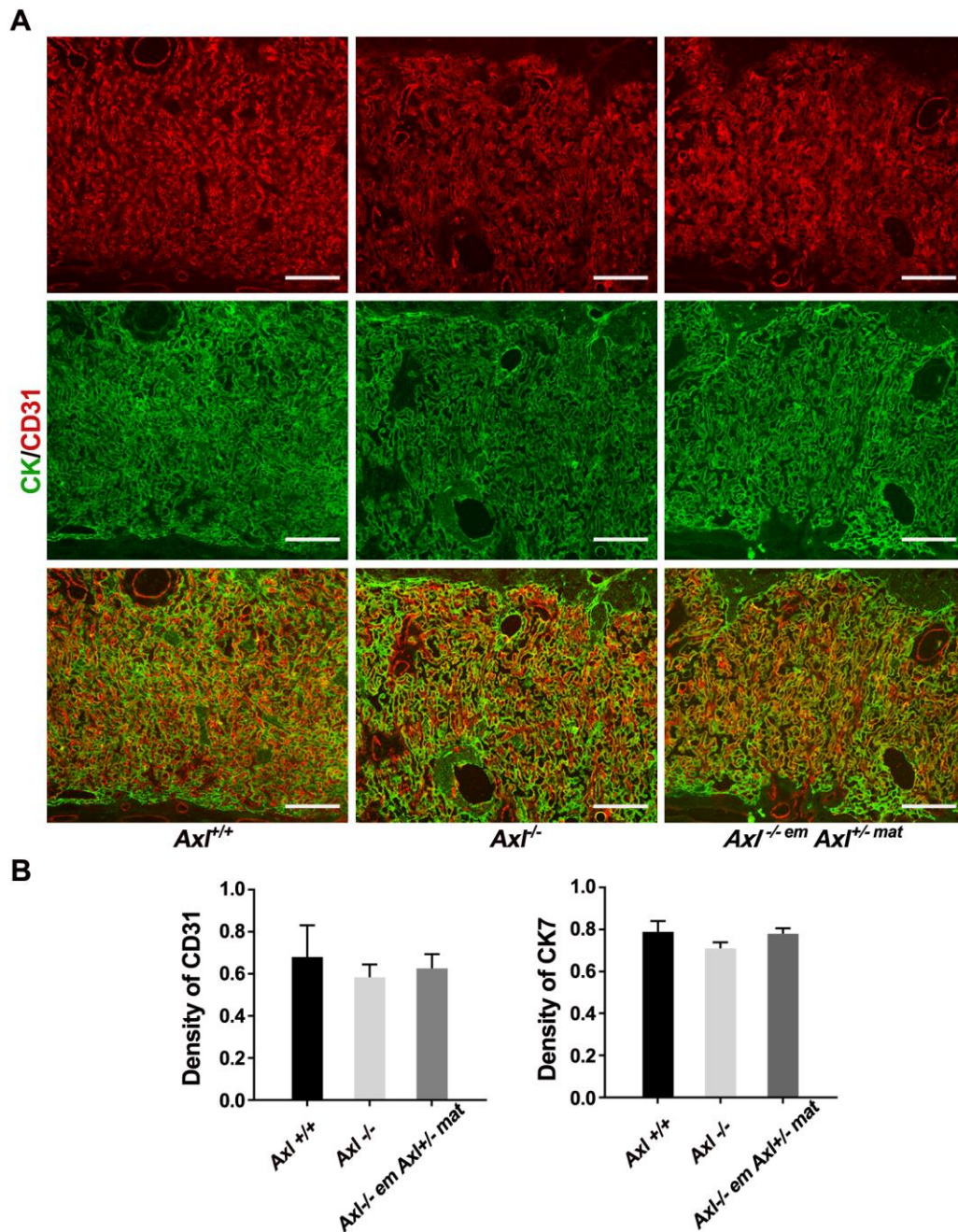


Fig.S1. AXL deletion impaired junction area but not labyrinth.

(A) Photomicrographs of trophoblast cell marker (cytokeratin, CK) and blood vessel endothelial marker (CD31) at E14.5 maternal-fetal interfaces of different groups. (B) Quantification of vascular and trophoblastic density using CD31 and CK, respectively. Scale bars, 0.2 mm.

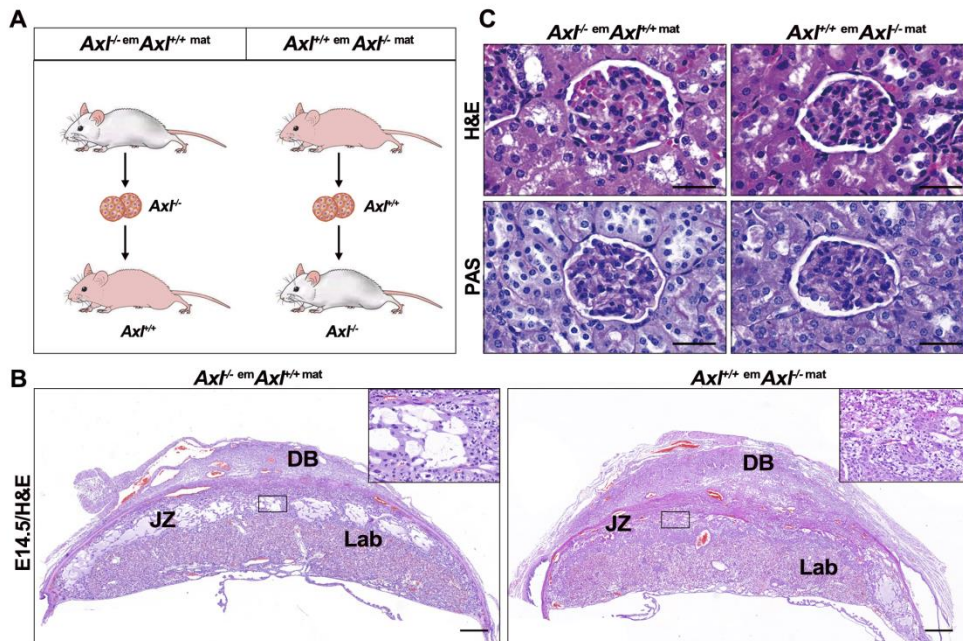


Fig.S2. Embryo transferring between *Axl*^{+/+} and *Axl*^{-/-} mice.

(A) Sketch map of embryo transfer. (B) The placenta from *Axl*^{-/-} mice carrying *Axl*^{+/+} fetus showed large confluent areas of glycogen deposition, replacing much of the JZ at E18.5. DB, decidual basalis; JZ, junctional zone; Lab, labyrinth. Scale bars, 0.5 mm. (C) Comparison of H&E and PAS staining of the renal tissues in embryo transferred mice. Results indicate increased extracellular matrixes in *Axl*^{-/-} females with *Axl*^{+/+} embryo. Scale bars, 50 μ m.

Table S1. The clinical characteristics of study subjects in the sPE and

Normal Pregnancy groups.

sPE, severe pre-eclampsia; SBP, systolic blood pressure; DBP, diastolic blood pressure; NA, not applicable. All data are presented as means \pm SD.

Variables	sPE (n=16)	NC (n=17)	P value
Age(years)	32.19 \pm 2.903	29.65 \pm 3.334	0.5969
Gestational age at delivery (weeks)	37.19 \pm 2.563	38.82 \pm 3.588	<0.01
SBP (mmHg)	150.5 \pm 11.237	119 \pm 9.062	<0.01
DBP (mmHg)	94.06 \pm 6.527	75.94 \pm 8.863	<0.01
Birth weight (g)	3043.75 \pm 457.038	3547.06 \pm 487.811	<0.05
Proteinuria (+)	++~+++	NA	NA

Table S2. Antibodies used for immunostaining and Western blot analysis.

Antibody	Dilution	Source	Identifier
Rabbit polyclonal anti-CYTOKERATIN	1/300	DAKO	Z0622
Rat polyclonal anti-CD31	1/300	Biolegend	102501
Rabbit polyclonal anti- α -SMA	1/200	Proteintech	55135-1-AP
Rabbit polyclonal anti-AXL	1/1000	Affinity	AF7793
Rabbit polyclonal anti-p-STAT3(Ser727)	1/1000	Cell signaling technology	49081
Rabbit polyclonal anti- STAT3	1/1000	Cell signaling technology	4904
Rabbit polyclonal anti-CORIN	1/500	ABclonal technology	A10404
Mouse monoclonal anti-VIMENTIN	1/300	ABclonal technology	AB8978
Rabbit polyclonal anti-GAPDH	1/1000	Cell signaling technology	5174

Table S3. qPCR primers.

Target	Forward Primer	Reverse Primer	Product size
<i>Gapdh</i>	GGAGCGAGATCCCTCCAAAAT	GGCTGTTGTCATACTTCTCATGG	197bp
<i>Corin</i>	CTACAACCATACACATTATCCA	TTGTCCTGTATTACATCAC	172bp
<i>Angptl1</i>	AAGACATGGACAATGATAACTG	CAAGTGCTGATGAACTGAAT	122bp
<i>Ren2</i>	ACACTGGTTCATCCTTTATC	ACAGCTCACAACATATTCAT	104bp
<i>Ada</i>	AAGGTGGACCCAATGCCC	CCGGACCTTGATGCCAAATGCTTGC	117bp
-275~-79	TCTAGTGGAGATGGGCTACAGT	GTGTAGACATTCCAAAGCAAAGGT	196bp
-421~-272	ACACTGCTTTCCTTGACGCT	AAACGGCGTTGCTGTTTGAG	149bp
-497~-397	TGAAGCTCAAACAGCAACGC	TGTCAGGTTTCGAAGGCAGG	100bp
-646~-478	CCTGCCTTCGAAACCTGACA	AGCAGTGTAAGGGCTGCTC	168bp
-782~-622	GAAGAGAGCAGCCCTTTACA	TTTCTATGGCAGATGGAGAGCC	160bp
-866~-689	TGCTGCCCCATAGTTGAAGG	CCTTCACTCACGTCTCTGGG	177bp
-971~-848	CCAGAGACGTGAGTGAAGGG	GGCACTACGGGTGTCTTTCT	123bp