Kiyozumi et al., http://www.jcb.org/cgi/content/full/jcb.201203065/DC1

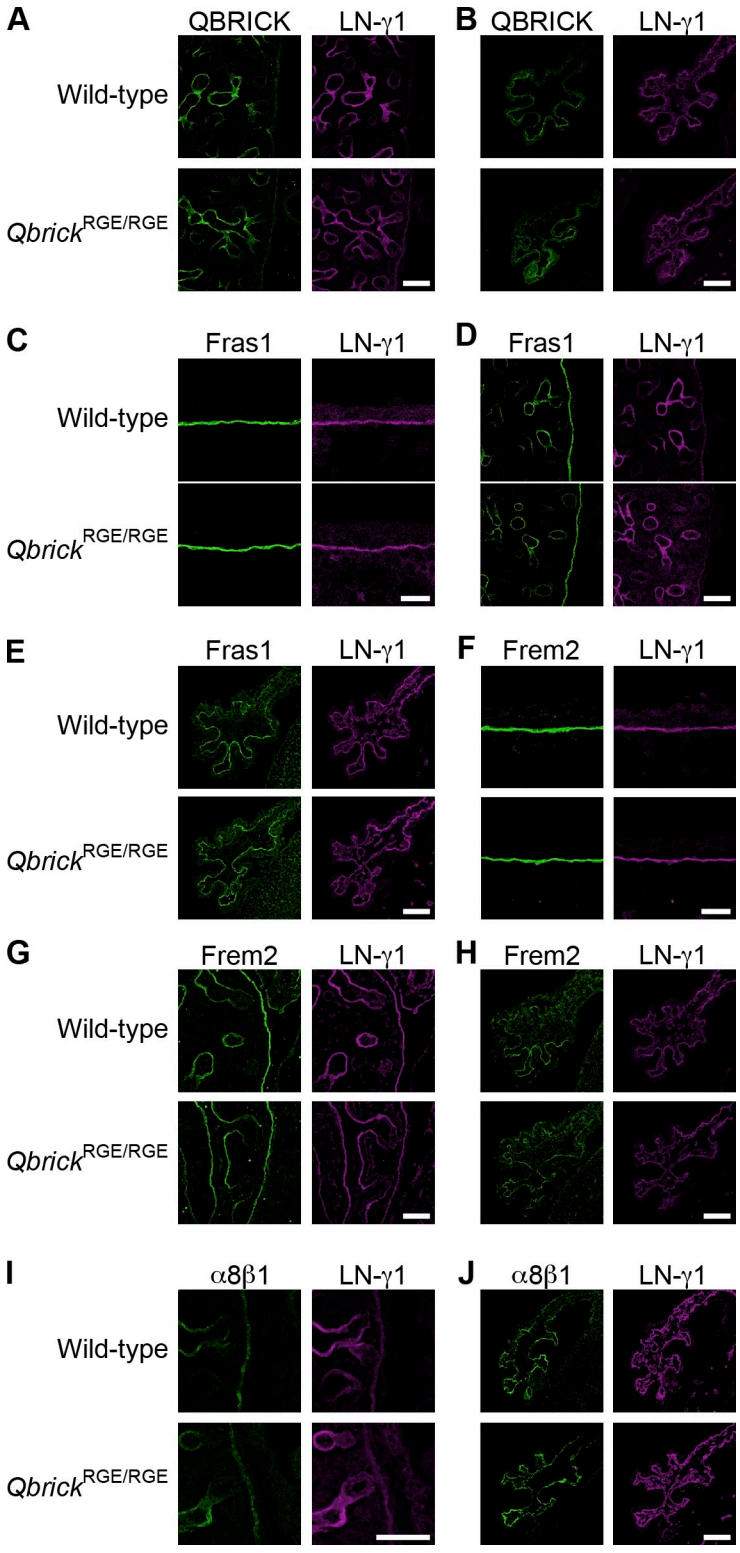

Figure S1. **Expression of FS-associated proteins and in situ binding of integrin α8β1 at the BMs of *Qbrick*$^{RGE/RGE}$ embryos.** Immunofluorescence staining (green) for QBRICK (A and B), Fras1 (C–E), Frem2 (F–H), and exogenously added integrin α8β1 (I and J) at the BMs of the lung (A, D, G, and I), choroid plexus (B, E, H, and J), and skin (C and F) of E15.5 *Qbrick*$^{RGE/RGE}$ embryos. Laminin-γ1 immunofluorescence staining (magenta) to visualize the BMs is also shown. In each set of panels, the top and bottom panels show fluorescence images for wild-type and *Qbrick*$^{RGE/RGE}$ littermates, respectively. Bars: (A, B, D, E, and G–J) 100 µm; (C and F) 20 µm.

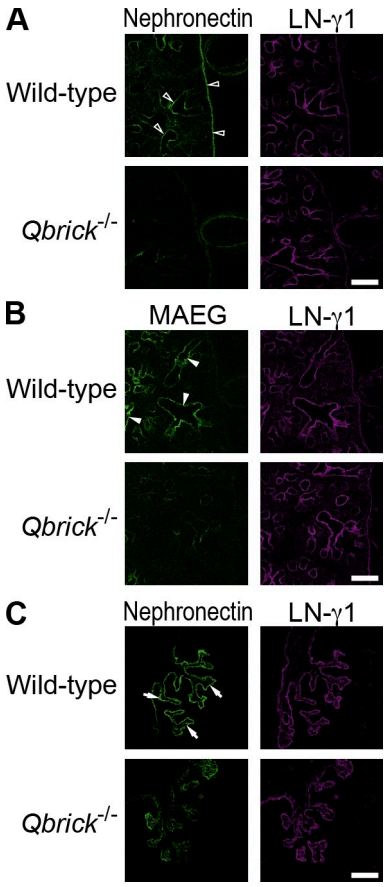

Figure S2. **Impaired expression of nephronectin and MAEG in *Qbrick*$^{-/-}$ mice.** The left panels show immunofluorescence staining (green) for nephronectin (A and C) and MAEG (B) in the E15.5 developing lung (A and B) and choroid plexus (C). The right panels show laminin-γ1 immunofluorescence staining (magenta) to visualize the BMs. In each set of panels, the top and bottom panels show fluorescence images for wild-type and *Qbrick*$^{-/-}$ littermates, respectively. In the E15.5 lung, the expression of nephronectin is high at the BMs of the pleura and lung epithelia in wild-type embryos (open arrowheads), but is greatly diminished in the *Qbrick*$^{-/-}$ littermates. Similarly, the expression of MAEG, which is high at the lung epithelial BMs in wild-type embryos (closed arrowheads), is greatly diminished in the *Qbrick*$^{-/-}$ littermates. In the E15.5 choroid plexus, the expression of nephronectin is high at the ependymal BM in wild-type embryos (arrows), but is considerably attenuated in the *Qbrick*$^{-/-}$ littermates. Bars, 100 µm.

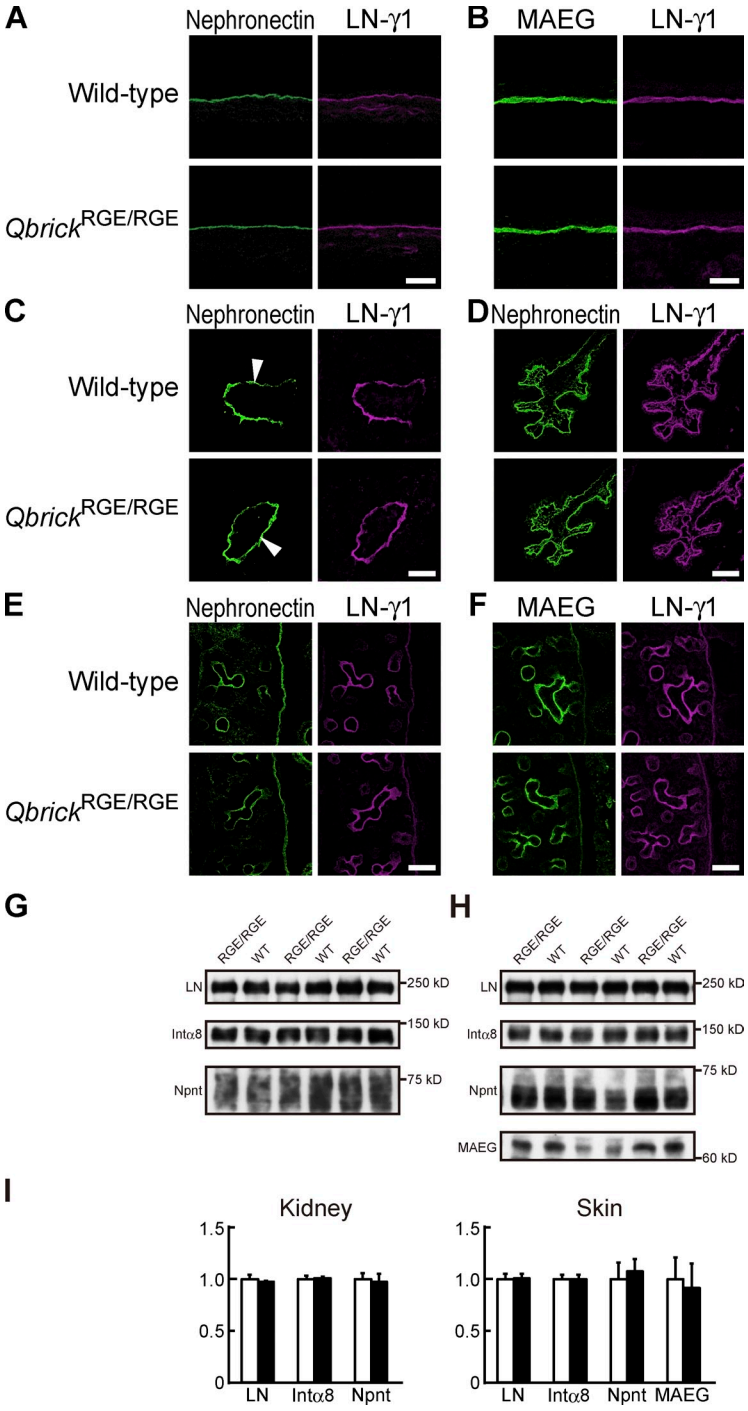

Figure S3. **Expression of nephronectin and MAEG in *Qbrick*$^{RGE/RGE}$ embryos.** The left panels show immunofluorescence staining (green) for nephronectin (A and C–E) and MAEG (B and F) in the E15.5 skin (A and B), E11.5 ureteric bud (C), E15.5 choroid plexus (D), and E15.5 lung (E and F). The right panels show laminin-γ1 immunofluorescence staining (magenta) to visualize the BMs. In each set of panels, the top and bottom panels show fluorescence images for wild-type and *Qbrick*$^{RGE/RGE}$ littermates, respectively. Bars: (A and B) 20 μm; (C–F) 100 μm. (G and H) Immunoblot detection of laminin β1 and γ1 chains (LN), integrin α8 (Intα8), nephronectin (Npnt), and MAEG in protein extracts from the kidney (G) and skin (H) of E15.5 *Qbrick*$^{RGE/RGE}$ mice and their wild-type littermates. (I) Immunoblot signal intensities of laminin β1 and γ1 chains (LN), integrin α8 (Intα8), nephronectin (Npnt), and MAEG in the kidney and skin of E15.5 wild-type (open bars) and *Qbrick*$^{RGE/RGE}$ (shaded bars) mice. The signal levels in control mice were set at 1. Each bar represents the mean ± SD (error bars; $n = 3$).

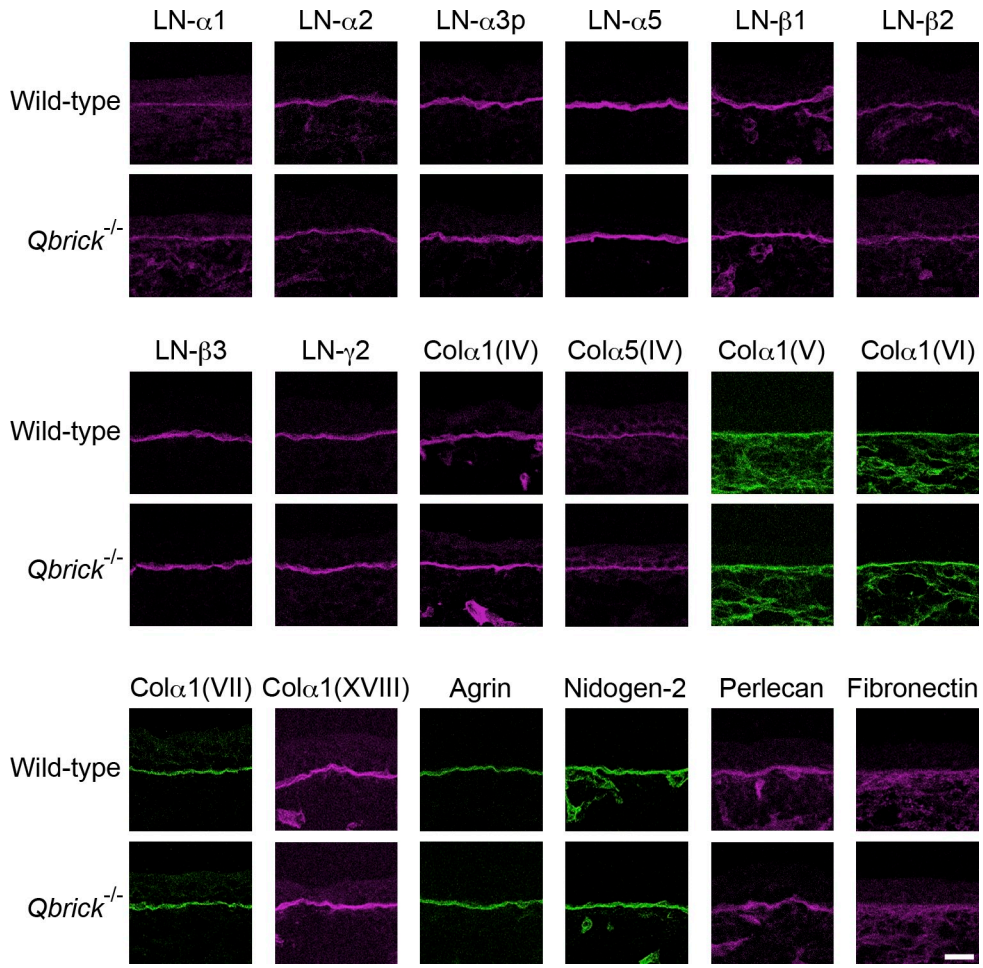

Figure S4. **Expression of various BM proteins in *Qbrick*$^{-/-}$ mice.** The expression of BM proteins was investigated by immunofluorescence staining of the E15.5 dorsal skin. In each set of panels, the top and bottom panels show fluorescence images for wild-type and *Qbrick*$^{-/-}$ littermates, respectively. Bar, 20 µm.

Table S1. **Antibodies used for immunofluorescence staining**

Antibody	Company/reference	Concentration/dilution
Laminin-α1	Manabe et al., 2008	0.5 µg/ml
Laminin-α2	Manabe et al., 2008	1.5 µg/ml
Laminin-α3p	Manabe et al., 2008	0.25 µg/ml
Laminin-α5	Manabe et al., 2008	0.25 µg/ml
Laminin-β1	Manabe et al., 2008	0.3 µg/ml
Laminin-β2	Manabe et al., 2008	0.6 µg/ml
Laminin-β3	Manabe et al., 2008	0.2 µg/ml
Laminin-γ1	Millipore	1:2,000
Laminin-γ2	Manabe et al., 2008	0.9 µg/ml
Collagen α1 (IV)	Sado et al., 1995	1:1500
Collagen α5 (IV)	Seki et al., 1998	1:500
Collagen α1 (V)	LSL	1:10,000
Collagen α1 (VI)	Rockland Immunochemicals	1:50,000
Collagen α1 (VII)	EMD	1:1,000
Collagen XVIII	R&D Systems	1:4,000
Agrin	Manabe et al., 2008	1:1500
Nidogen-2	Manabe et al., 2008	0.2 µg/ml
Perlecan	Millipore	1:1,000
Fibronectin	Sekiguchi et al., 1985	1 µg/ml
Nephronectin	Manabe et al., 2008	1 µg/ml
MAEG	Osada et al., 2005	3 µg/ml
QBRICK	Kiyozumi et al., 2005	3 µg/ml
Fras1	Kiyozumi et al., 2006	3 µg/ml
Frem2	Kiyozumi et al., 2006	3 µg/ml

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