Supporting Information

Dupressoir et al. 10.1073/pnas.1112304108

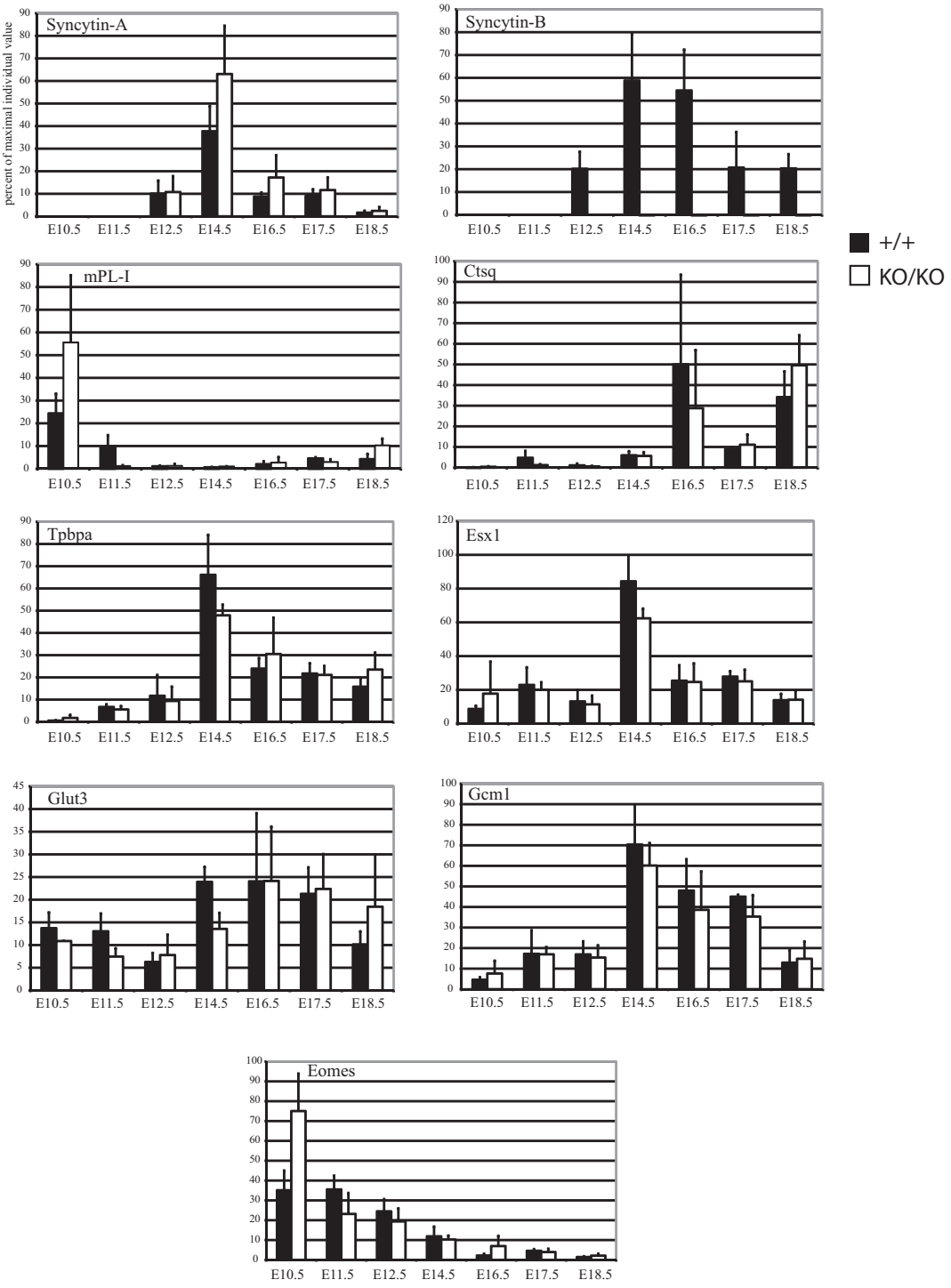

Fig. S1. Real-time quantitative RT-PCR analysis of trophoblast-specific genes in the placentae from WT (+/+) and mutant (KO/KO) living embryos at different embryonic days (E). Total RNA was extracted from placentae using the RNeasy RNA isolation kit (Qiagen). RT and quantitative PCR were performed as reported by Dupressoir et al. (1) with primers listed in Table S1. Values (transcript levels expressed as percent of the maximal individual value after normalization with 18S RNA) are means ± SD of 4–10 living embryos. Genes analyzed are *syncytin-A*, specific for ST-I (1, 2); *Gcm1*, specific for ST-II (2, 3); *Ctsq*, specific for STGCs (4); *mPL-I/Prl3d1*, specific for giant cells (5); *Tpbpa/4311*, specific for spongiotrophoblast cells (6); *Eomes*, specific for trophoblast stem cells (7, 8); *syncytin-B* (1); *Glut3/Slc2a3* (9); and *Esx1* (10). No significant differences between WT and mutant placentae were observed. As expected, no *syncytin-B* expression was detected in the placentae of null embryos.

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4. Simmons DG, Fortier AL, Cross JC (2007) Diverse subtypes and developmental origins of trophoblast giant cells in the mouse placenta. *Dev Biol* 304:567–578.
5. Colosi P, Swiergiel JJ, Wilder EL, Oviedo A, Linzer DI (1988) Characterization of proliferin-related protein. *Mol Endocrinol* 2:579–586.
6. Lescisin KR, Varmuza S, Rossant J (1988) Isolation and characterization of a novel trophoblast-specific cDNA in the mouse. *Genes Dev* 2(12A):1639–1646.
7. Russ AP, et al. (2000) Eomesodermin is required for mouse trophoblast development and mesoderm formation. *Nature* 404:95–99.
8. Tanaka S, Kunath T, Hadjantonakis AK, Nagy A, Rossant J (1998) Promotion of trophoblast stem cell proliferation by FGF4. *Science* 282:2072–2075.
9. Shin BC, Fujikura K, Suzuki T, Tanaka S, Takata K (1997) Glucose transporter GLUT3 in the rat placental barrier: A possible machinery for the transplacental transfer of glucose. *Endocrinology* 138:3997–4004.
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Table S1. Oligonucleotides

Name	Sequence
Gene targeting: 5′ and 3′ arm amplification	
5′ arm-F	TACCCGTACTAGGAAAGAACT
5′ arm-R	TGGGAATGAAGTGCCAGTGAGAA
3′ arm-F	ATGGCCTCTGGAGTTGTTTCACC
3′ arm-R	AGATCCAAGTCCACCCTGTCCTG
Gene targeting: 2.6-kb *syncytin-B* ORF amplification	
ORF-F	TTTCTGGATGCACGGACTGCT
ORF-R	TGTCTGAGATGGGGGCTACT
RT-PCR quantification	
SynA-F	CATCTATGCTGGATGAAGCCT
SynA-R	AGACCCTGGCATGGCCATTA
SynB-F	GCCCGTTGATCTCAGCCTCCT
SynB-R	GGCATCCGGTCTTTTCATTGC
Gcm1-F	AGCAGAACTCCCTGAATGAT
Gcm1-R	GCAGAGGATAGGCTGGATAG
GLUT3-F	CTGAAGAACTGTGGCCTGG
GLUT3-R	GCTTCTCCTGTGACATCCGA
Esx1-F	AGCAACCCCAACAGGAGC
Esx1-R	GGACTCATGGCGACTGGA
Eomes-F	AAAACTTCTTCCCGGAGCC
Eomes-R	TGTCTAGCTTGTTGGTCACAGG
MplI-F	GAATCGAGAGGAAGTCCACG
MplI-R	CAGCAGCTTTTTTCCCCATA
Ctsq-F	TTCATTGGCCCAATACCCTA
Ctsq-R	GAAAGCTCCCAGAATTCACA
Tpbpa-F	CCAGCACAGCTTTGGACATCA
Tpbpa-R	AGCATCCAACTGCGCTTCA

F, forward; R, reverse.