Disruption of the mouse *Shmt2* gene confers embryonic anaemia via foetal liver-specific metabolomic disorders

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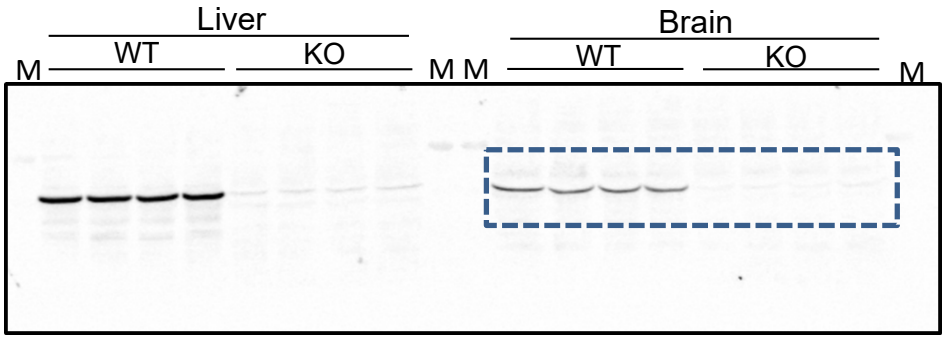
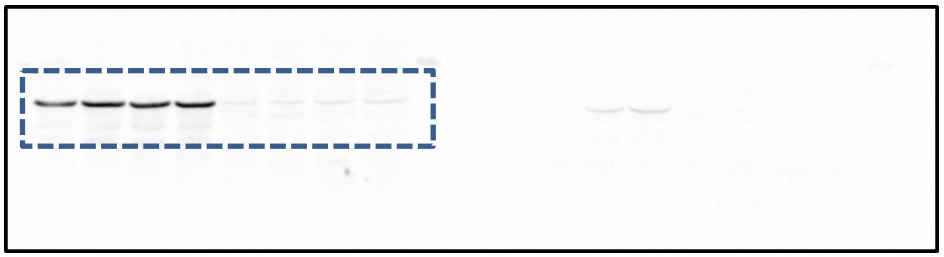
Figure S1

SHMT2 Antibody M : Maker



Exposure Time : 1 min

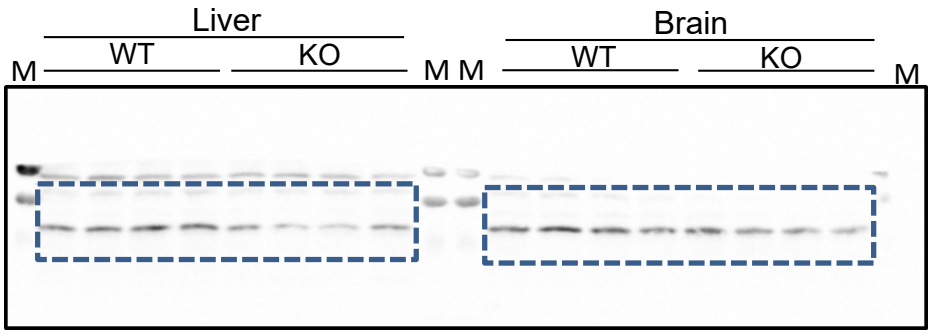
55 kDa



Exposure Time : 45 sec

55 kDa

NDUFS4 Antibody



20 kDa

NDUFA9 Antibody

37 kDa

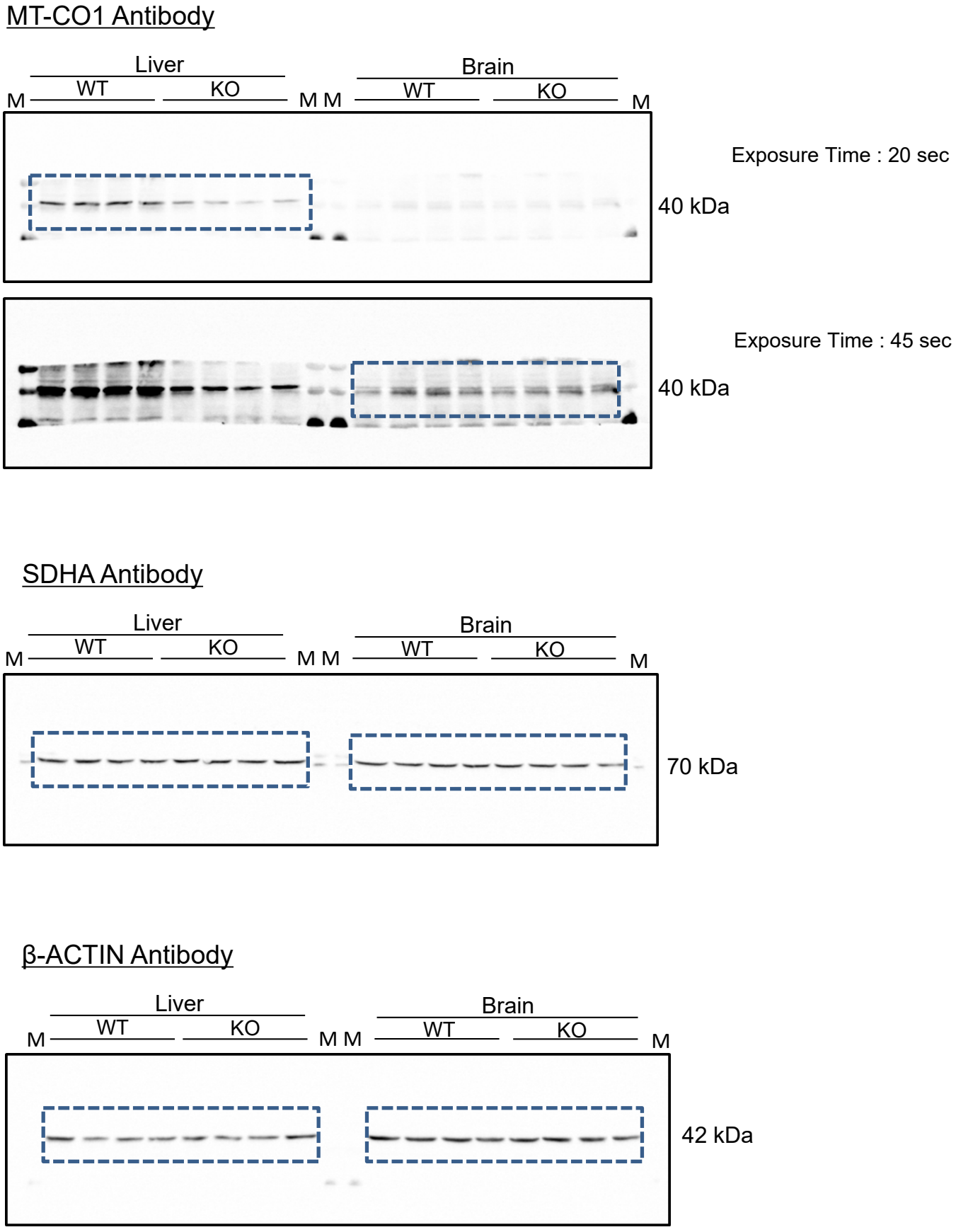


Figure S1 Full-length blots of Figure 1
Membranes were cut to enable reacting of multiple antibodies. some membranes were detected at several exposure times. The dotted lines indicate the sites used in Figure 1.

Figure S2

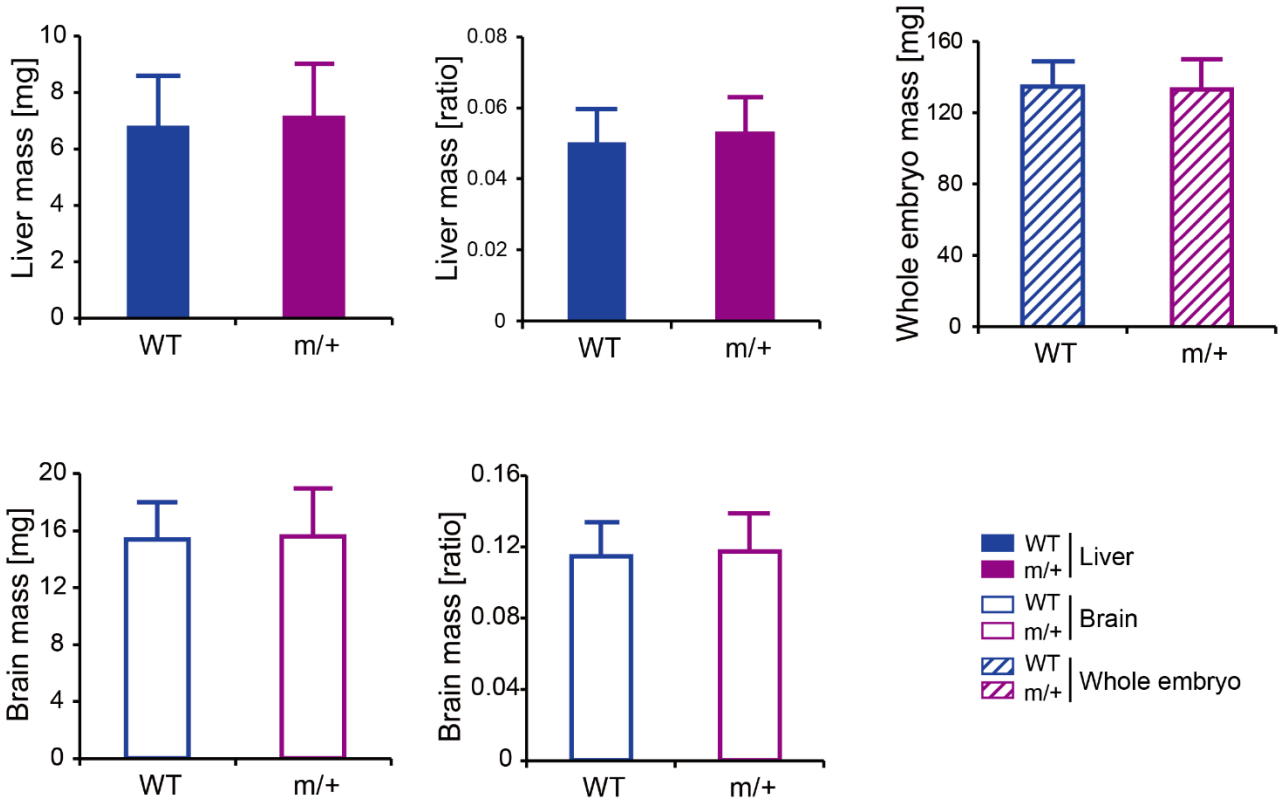


Figure S2 Effects of *Shmt2* disruption on the growth of livers and brains from E13.5 heterozygous *Shmt2* m/+ embryos. Comparison of the weights of tissues or whole embryos between wild-type and heterozygous *Shmt2* m/+ mice. WT, wild-type foetal livers (filled blue bars), wild-type foetal brains (open blue bars), and wild-type whole embryos (a hatched blue bar). m/+, heterozygous foetal livers (filled purple bars), heterozygous foetal brains (open purple bars), and heterozygous whole embryos (a hatched purple bar). Data represent the means ± S.D, Student's *t* test (WT, n=26; m/+, n=27).

Figure S3

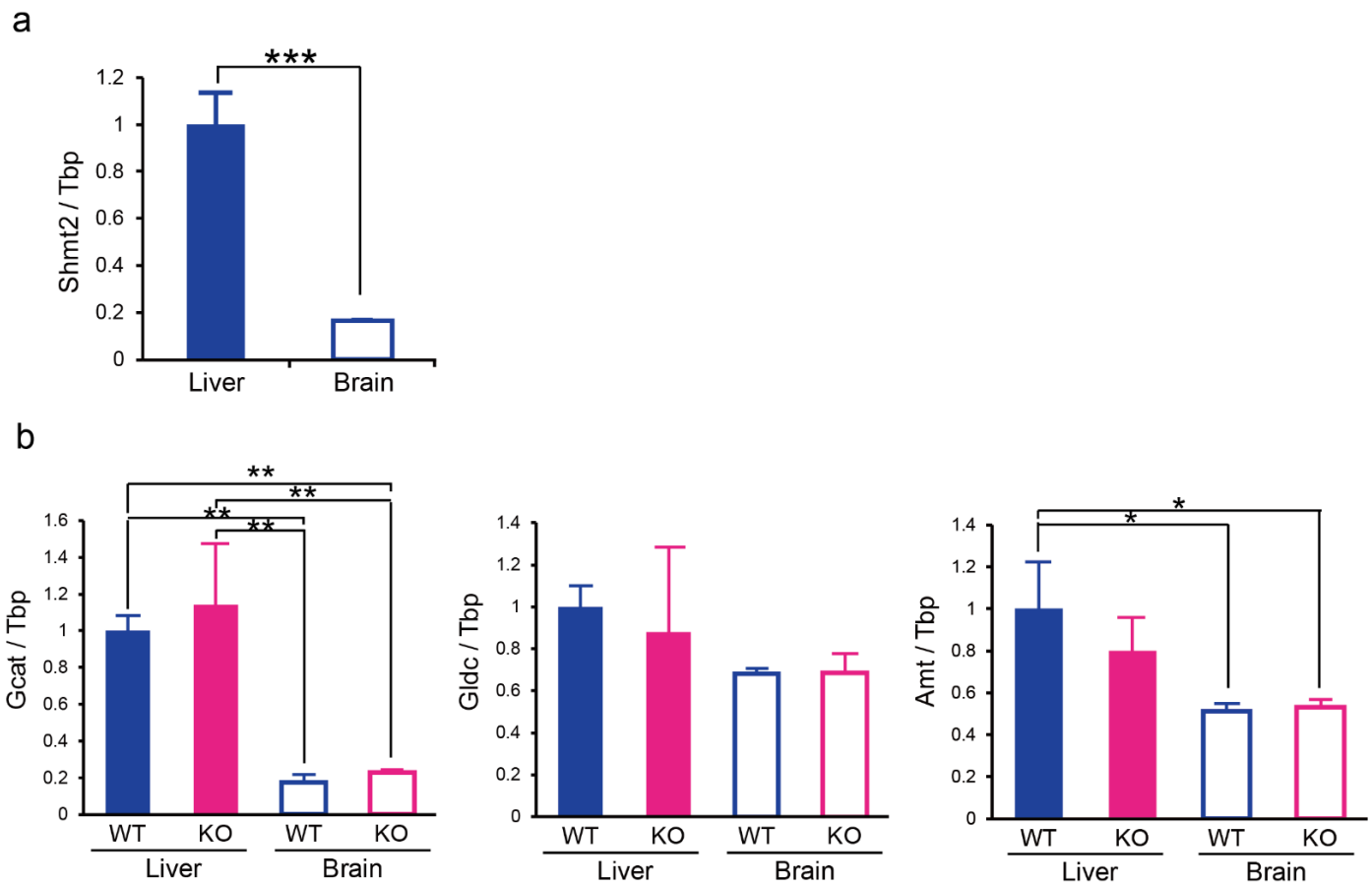


Figure S3 Real-time quantitative PCR to compare mRNA levels of genes involved in 1C metabolism. (**a**) Comparison of mRNA levels of *Shmt2* involved in the serine pathway between wildtype foetal livers and brains. (**b**) Comparison of mRNA levels of *Gcat* involved in the threonine pathway and those of *Gldc* and *Amt* involved in the GCS in wild-type and *Shmt2*-knockout foetal livers and brains. Filled blue bars, wild-type foetal livers; filled red bars, *Shmt2*-knockout foetal livers; open blue bars, wild-type foetal brains; open red bars, *Shmt2*-knockout foetal brains. Data represent the means ± S.D. **P* < 0.05; ***P* < 0.01, ****P* < 0.001, Tukey-Kramer method (WT, n = 3; KO, n = 3).