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MPC2 FLOXED MICE

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Using embryonic stem cells from the European knockout mouse consortium (EUCOMM), researchers developed transgenic mice with *loxP* sites flanking exon 3 of the mitochondrial pyruvate carrier 2 (*Mpc2*) gene. MPC2 is a component of the MPC complex, which is involved in the transport of pyruvate across the inner mitochondrial membrane. MPC2 plays an apparent role in gluconeogenesis in hepatocytes and therefore, more broadly, the proper maintenance of blood sugar during prolonged food deprivation and hyperglycemia in diabetes. Mice that are homozygous for the floxed *Mpc2* allele are viable and fertile. When these mice are bred to mice that express Cre recombinase in the liver (JAX Stock Number 003574), the resulting offspring have impaired hepatic mitochondrial pyruvate metabolism and gluconeogenesis, making them useful in investigating the role of MPC2 in metabolic diseases or cancer and evaluating therapies for these diseases.

These mice have been deposited in Jackson Labs (Stock No: 032118).