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Placenta-specific MTP deficient mice

These placenta-specific MTP-deficient mice can be used to study the role of microsomal triglyceride transfer protein (MTTP) in the placenta, which is crucial for embryonic development.

Placenta-specific MTTP (microsomal triglyceride transfer protein) deficient mice are valuable for studying maternal-fetal nutrient transfer, placental function, and fetal development. MTTP is essential for the assembly and secretion of lipoproteins, which transport lipids such as triglycerides and cholesterol. By creating these MTTP-deficient mice, researchers can investigate how the absence of MTTP affects lipid transfer from the mother to the fetus, thereby providing insights into the mechanisms of maternal-fetal nutrient exchange. This model allows for a deeper understanding of how lipid transport and metabolism are regulated within the placenta and how these processes impact overall placental function. Additionally, examining the effects of MTTP deficiency in the placenta enables researchers to explore how disruptions in lipid transport influence fetal development, potentially identifying critical periods and mechanisms sensitive to lipid availability.

References

1. Kim et al. , <https://pubmed.ncbi.nlm.nih.gov/39645027/>

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