C57BL/6 (Rosa-rtTA shTet2)

These reversible RNAi transgenic mice can be used to model knockdown and restoration of endogeous Tet2 in hematopoietic cells for TET2 mutant diseases.

These are Doxycycline-inducible transgenic mice expressing shRNAs that target the Tet2 gene. To model reversible Tet2 knockdown, researchers created transgenic mice that express a Tet2-specific shRNA regulated by doxycycline (Dox) from the Col1a1 locus. These mice were bred with two types of transactivator mice: Vav-tTA (VTA) mice, which have a pan-hematopoietic, Dox-off tTA transactivator, and ROSA26-M2rtTA (RTA) mice, which have a ubiquitously expressed, Dox-on M2rtTA transactivator. The resulting progeny exhibit Dox-regulated Tet2 gene knockdown or restoration.

References

1. Cimmino et al. , https://pmc.ncbi.nlm.nih.gov/articles/PMC5755977/

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