Patisiran: Blood-Brain Barrier

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SUMMARY

- The PK and ADME properties of patisiran were evaluated to support pivotal toxicology studies and clinical development of patisiran.[1]
- Patisiran did not appear to cross the blood-brain barrier in rats administered radiolabeled medication.[1]

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PRE-CLINICAL DATA

The PK and ADME properties of patisiran were evaluated in various in vitro and in vivo studies to support pivotal toxicology studies and clinical development of patisiran.[1]

Patisiran Quantitative Whole-body Autoradiography in Rats

Quantitative tissue distribution of total drug-related radioactivity was investigated in male rats following a single IV bolus injection of patisiran-LNP containing a radio-label on the lipid component ([14C]-DLin-MC3-DMA). In the QWBA study, there were minimal amounts of radioactivity in the central nervous system suggesting patisiran-LNP does not penetrate the blood-brain barrier.[1]

ABBREVIATIONS

ADME = absorption, distribution, metabolism, and excretion; IV = intravenous; LNP = lipid nanoparticle; PK = pharmacokinetics; QWBA = quantitative whole-body autoradiography

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REFERENCES

1. Alnylam Pharmaceuticals. Data on file. MED-ALL-TTR02-2000182.