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Pharmacokinetic profile of bilberry anthocyanins in rats and the role of glucose transporters: LC-MS/MS and computational studies

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Highlights

- A LC-ESI-MS method for anthocyanins identification and quantitation in plasma was set-up and validated;
- 15 bilberry anthocyanins behave differently in term of bioavailability and both the aglycone and the sugar moiety significantly affect the PK profile;
- Such different behavior was explained by computational studies which have found a significant correlation between the extent of anthocyanin absorption and their SGLT1 and GLUT2 molecular recognition;