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Characterization of the IPEC-J2 MDR1 (iP-gp) cell line as a tool for identification of P-gp substrates

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Data article

Title: Data demonstrating the challenges of determining the kinetic parameters of P-gp mediated transport of low-water soluble substrates

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Abstract

The presented data are related to the research article entitled "Characterization of the IPEC-J2 MDR1 (iP-gp) cell line as a tool for identification of P-gp substrates" (Ozgur et al., 2017). This data report describes the challenges of investigating the concentration-dependent transport for P-glycoprotein (P-gp) substrates with relatively low aqueous solubility. Thus, we provide solubility data on two prototypical P-gp substrates, digoxin and rhodamine 123, and present a simulated Michaelis-Menten curve of the P-gp mediated transport of digoxin. Furthermore, we present data from bidirectional transport of digoxin and rhodamine 123 across cell monolayers of the MDCK II MDR1 and iP-pg cell lines in the presence of the selective P-gp inhibitor, zosuquidar (LY335979).