Drug Metabolism & Disposition

Abundance of Hepatic Transporters in Caucasians: A Meta-Analysis

Howard J Burt*, Arian Emami Riedmaier*, Matthew D Harwood, H. Kim Crewe, Katherine L Gill, Sibylle Neuhoff

Transporter	References
BCRP	[1-5]
BSEP	[1, 2, 5, 6]
ENT1	[2]
MATE1	[2, 6]
MCT1	[2]
MDR1	[2, 4-8]
MRP2	[2, 4-6, 9, 10]
MRP3	[5, 6]
MRP4	[2, 6]
MRP6	[2, 6]
NTCP	[2, 5, 6, 11]
OAT2	[2, 6]
OAT7	[6]
OATP1B1	[2, 5, 7, 8, 12-14]
OATP1B3	[2, 5, 7, 8, 12-14]
OATP2B1	[2, 5, 7, 8, 12-14]
OCT1	[5, 6]
OCT3	[6]
MDR3	[2]
MRP1	[2, 6]
MRP5	[2]
ABCA6	[2]
ABCA8	[2]
CNT1	[2]

Supplementary Material 1. References corresponding to the data presented in Table 3.

- 1. Li, N., et al., *LC-MS/MS mediated absolute quantification and comparison of bile salt export pump and breast cancer resistance protein in livers and hepatocytes across species.* Anal Chem, 2009. **81**(6): p. 2251-2259.
- 2. Ohtsuki, S., et al., Simultaneous absolute protein quantification of transporters, cytochromes P450, and UDP-glucuronosyltransferases as a novel approach for the characterization of individual human liver: comparison with mRNA levels and activities. Drug Metab Dispos, 2012. **40**(1): p. 83-92.
- 3. Prasad, B., et al., *Interindividual variability in the hepatic expression of the human breast cancer resistance protein (BCRP/ABCG2): effect of age, sex, and genotype.* J Pharm Sci, 2013. **102**(3): p. 787-793.
- 4. Tucker, T.G.H.A., et al., *Absolute immunoquantification of the expression of ABC transporters P-glycoprotein, breast cancer resistance protein and multidrug resistance-associated protein 2 in human liver and duodenum.* Biochem Pharmacol, 2012. **83**(2): p. 279-285.
- 5. Wang, L., et al., *Interspecies variability in expression of hepatobiliary transporters across human, dog, monkey, and rat as determined by quantitative proteomics.* Drug Metab Dispos, 2015. **43**(3): p. 367-374.

- 6. Vildhede, A., In vitro and in silico predictions of hepatic transporter-mediated drug clearance and drug-drug interactions in vivo, in Digital Comprehensive Summaries of Uppsala Dissertations from the Faculty of Pharmacy 193. 2015, Uppsala University.
- 7. Peng, K.-W., et al., *Ethnic variability in the expression of hepatic drug transporters: absolute quantification by an optimized targeted quantitative proteomic approach.* Drug Metab Dispos, 2015. **43**(7): p. 1045-1055.
- 8. Prasad, B., et al., *Interindividual variability in hepatic organic anion-transporting polypeptides and P-glycoprotein (ABCB1) protein expression: quantification by liquid chromatography tandem mass spectroscopy and influence of genotype, age, and sex.* Drug Metab Dispos, 2014. **42**(1): p. 78-88.
- 9. Deo, A.K., et al., Interindividual variability in hepatic expression of the multidrug resistanceassociated protein 2 (MRP2/ABCC2): quantification by liquid chromatography/tandem mass spectrometry. Drug Metab and Dispos, 2012. **40**(5): p. 852-855.
- 10. Li, N., et al., Absolute difference of hepatobiliary transporter multidrug resistance-associated protein (*MRP2/Mrp2*) in liver tissues and isolated hepatocytes from rat, dog, monkey, and human. Drug Metab Dispos, 2009. **37**(1): p. 66-73.
- 11. Qiu, X., et al., *Absolute measurement of species differences in sodium taurocholate cotransporting polypeptide (NTCP/Ntcp) and its modulation in cultured hepatocytes.* J Pharm Sci, 2013. **102**(9): p. 3252-3263.
- 12. Balogh, L.M., et al., *Membrane Protein Quantification by Peptide-Based Mass Spectrometry Approaches: Studies on the Organic Anion-Transporting Polypeptide Family.* J Proteomics Bioinform, 2012. **S4**: p. 1-8.
- 13. Kimoto, E., et al., *Characterization of organic anion transporting polypeptide (OATP) expression and its functional contribution to the uptake of substrates in human hepatocytes.* Mol Pharm, 2012. **9**(12): p. 3535-42.
- 14. Vildhede, A., et al., *Hepatic uptake of atorvastatin: influence of variability in transporter expression on uptake clearance and drug-drug interactions*. Drug Metab Dispos, 2014. 42(7): p. 1210-1218.