

Compounds in <b>Training set</b>	CLb (ml/min/kg)	Administration Route	Collection period	Analytical Method	Molecular Weight	Charge Status	Substrate of Efflux Transporter	Reference
azithromycin	5.6 ± 0.6	infusion	60 min	HPLC	749	cation	Mrp2,P-gp	Sugie M, et.al. Antimicrob Agents Chemother. 2004 Mar;48(3):809-14 Male Wistar Rats, 260 - 270g. Original data: 1.485 ± 0.159 ml/min.
BQ-485	37.3 ± 2.1	infusion	60 min	HPLC	628	anion	Mrp2	Kato Y, et.al. J Pharmacol Exp Ther. 1999 Feb;288(2):568-74 Male Sprague-Dawley rats weighing approximately 250 to 300g
BQ-518	20.9 ± 1.5	infusion	60 min	HPLC	651	anion	Mrp2	Kato Y, et.al. J Pharmacol Exp Ther. 1999 Feb;288(2):568-74 Male Sprague-Dawley rats weighing approximately 250 to 300g
camptothecin (carboxylate form)	21.45 ± 12	i.v	240 min	HPLC	366.38	anion	Mrp2	Scott DO, et.al. Drug Metab Dispos. 1994 May-Jun;22(3):438-42 Male Sprague-Dawley rats weighing between 250-300g.Original Data: 5.9 ± 3.3 ml/min.
cefodizime	0.55 ± 0.08	i.v	2 hr	Radioactive	584.67	anion	Mrp2	Matsushita H, et.al. J Pharmacol Exp Ther. 1992 Feb;260(2):499-504. Male Wistar rats weighing 240 to 280g.
cefpiramide (SM-1652)	5.22 ± 0.88	i.v	2 hr	HPLC	612.64	anion	Mrp2	Muraoka I, et.al. Antimicrob Agents Chemother. 1995 Jan;39(1):70-4 SD rats: 494 to 540g
ciprofloxacin	3.5	i.v	60 min	HPLC	331.34	zwitter		Yamaguchi H, et.al. Pharm Res. 2004 Feb;21(2):330-8 Male Wistar rats weighing 200–250g.
colchicine	9.05 ± 0.2	infusion	135 min	HPLC	399	neutral	P-gp	Speeg KV, et.al. Cancer Chemother Pharmacol. 1994;34(2):133-6 Male Sprague-Dawley rats weighing 300-400g
	11.6 ± 0.8	i.v	40 min	HPLC				Speeg KV, et.al. Hepatology. 1992 May;15(5):899-903. Male Sprague-Dawley rats weighing 300 to 400g
dibromosulfophthalein (DBSP)	21.87 ± 1.08	i.v	4 hr	Spectrophotometry	678	anion	Mrp2	Sathirakul K, et.al. J Pharmacol Exp Ther. 1993 Jun;265(3):1301-12 Male SD rats weighing approximately 280g. Original Data: % of Dose: 90; CLt: 24.3 ± 1.2 ml/min/kg.
	14.9	i.v	60 min	Spectrophotometry				Jansen PL, et.al. Hepatology. 1987 Jan-Feb;7(1):71-6. Wistar rats: 200-250g. Original Data: % of Dose: 81.8 ± 1.8; CLt: 4.1 ± 0.4 ml/min.
diclofenac	0.208	i.v	180 min	HPLC	296	anion		Peris-Ribera JE, et.al. J Pharmacokinetic Biopharm. 1991 Dec;19(6):647-65 Male Wistar rats: 320-380g. Original data: 1.6 ± 0.6 ml/min, unchanged drug accounted for 4.7% of that.
digoxin	3.03 ± 0.35	i.v	6 hr	Radioactive/HPLC	781	neutral	P-gp	Song S, et.al. Drug Metab Dispos. 1999 Jun;27(6):689-94 Female Sprague-Dawley (SD) rats weighing 220 to 270g.
doxorubicin	3.68 ± 1.28	i.v	24/48 hr	HPLC	543.5	cation	P-gp, Mrp2	Krishna R, et.al. Clin Cancer Res. 1999 Oct;5(10):2939-47 Male SD rats, 225-275g. Original data: 55.16 ± 19.2 ml/h.
	18.1 ± 1.67	infusion	60 min	HPLC				Asakura E, et.al. Eur J Pharmacol. 2004 Jan 26;484(2-3):333-9 SD male rats, 280-295g. Original data: 5.20 ± 0.48 ml/min.
	11.6 ± 1.1	infusion	60 min	HPLC				Yamaguchi S, et.al. Antimicrob Agents Chemother. 2006 Jan;50(1):80-7 Male SD rats, 270-280g. Original data: 3.18 ± 0.30 ml/min.
	10.5 ± 1.36	infusion	135 min	HPLC				Speeg KV, et.al. Cancer Chemother Pharmacol. 1994;34(2):133-6 Male Sprague-Dawley rats weighing 300-400g
	12.1 ± 0.85	infusion	60 min	HPLC				Kiso S, et.al. Anticancer Res. 2000 Sep-Oct;20(5A):2827-34. Wistar male rats, 280-310g. Original data: 3.56 ± 0.25 ml/min.
	26.4 ± 3.99 (M) 25.0 ± 1.31 (F)	infusion	60 min	HPLC				Suzuki T, et.al. Life Sci. 2006 Jun 27;79(5):455-61 Sprague-Dawley (SD) female and male rats weighing approximately 250 and 310g.
fexofenadine	11.4 ± 1.6	infusion	180 min	LC/MS	501.6	zwitter	P-gp	Tahara H, et.al. Drug Metab Dispos. 2005 Jul;33(7):963-8 SD rats, 300-350g

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furosemide	0.06 ± 0.04	infusion	2 hr	LC/MS	331	anion		Chen C, et.al. Pharm Res. 2003 Jan;20(1):31-7. Male Sprague-Dawley rats, 15 weeks of age (385 – 550g)
indocyanine green (ICG)	5.2 ± 0.4				775	anion	Mrp2	Speeg KV, et.al. Hepatology. 1992 May;15(5):899-903.
irinotecan (CPT-11) (lactone form)	5.19 ± 0.61 1.61 ± 0.27	i.v	8 hr	HPLC	586	cation	P-gp	Chu XY, et.al. J Pharmacol Exp Ther. 1997 Apr;281(1):304-14 Male SD rats weighing 250 to 300g.
levofloxacin	1.77	i.v	60 min	HPLC	361.4	zwitter	P-gp	Yamaguchi H, et. al. J Pharmacol Exp Ther. 2002 Mar;300(3):1063-9 Male Wistar rats, 200-240g. Original data: 0.39 ml/min.
	1.9	i.v	60 min	HPLC				Yamaguchi H, et.al. Pharm Res. 2004 Feb;21(2):330-8 Male Wistar rats weighing 200–250g.
lomefloxacin	0.253 ± 0.041	infusion	160 min	HPLC	351.35	zwitter	Mrp2	Sasabe H, et.al. Biopharm Drug Dispos. 1999 Apr;20(3):151-8 Male SD rats weighing approximately 250–300g
methotrexate (L-MTX)	12.1 ± 0.5	i.v	150 min	HPLC	454	anion	Mrp2	Masuda M, et.al. Cancer Res. 1997 Aug 15;57(16):3506-10 Male SDRs (250 - 300g).
	10.7 ± 1.7	infusion	120 min	Radioactive				Sasaki M, et.al. Mol Pharmacol. 2004 Sep;66(3):450-9 Male SD Rats, 240 - 260g
	9.43 ± 0.33	infusion	3 hr	Radioactive/HPLC				Ueda K, et.al. J Pharmacol Exp Ther. 2001 Jun;297(3):1036-43 Male Sprague-Dawley rats weighing 250 to 300g.
MX-68	5.5 ± 1.5	infusion	3 hr	Radioactive	512.54	anion	Mrp2	Han YH, et.al. J Pharmacol Exp Ther. 1999 Oct;291(1):204-12. Male Sprague-Dawley rats (SDRs) weighing 250 to 300g.
nelfinavir	0.017	i.v	100 min	LC/MS	567.8	cation	P-gp	Kageyama M, et.al. Biol Pharm Bull. 2005 Feb;28(2):316-22 Male Wistar rats weighing approximately from 280 to 320g. Original data: 0.104 ± 0.004 L/hr/kg(×10E-2).
octreotide	4.15 ± 0.21	infusion	60 min	Radioactive	1019.25	cation	P-gp	Yamada T, et.al. J Pharmacol Exp Ther. 1996 Dec;279(3):1357-64 Male SDR weighing approximately 220g
	7.44 ± 0.29	i.v	120 min	Radioactive				Yamada T, et.al. Drug Metab Dispos. 1997 May;25(5):536-43 Male SDRs weighing 220g
ouabain	27.2 ± 2.67	i.v	3 hr	Radioactive	584.67	neutral		Watkins JB, et.al. Drug Metab Dispos. 1987 Mar-Apr;15(2):177-83 Male Sprague-Dawley rats.
PAEB	4.38 ± 0.42	i.v	3 hr	Spectrophotometry	265.4	cation		Watkins JB 3rd, et.al. Drug Metab Dispos. 1987 Mar-Apr;15(2):177-83 Male Sprague-Dawley rats.
phenolsulfonephthalein (PSP, phenol red)	0.80 ± 0.08	i.v	60 min	HPLC-UV/VIS	353	anion	Mrp2	Itagaki S, et. al. Drug Metab Pharmacokinet. 2003;18(4):238-44 SD rat weighting 300-350g.
	2.25 ± 0.28	i.v	3 hr	Spectrophotometry				Watkins JB 3rd, et.al. Drug Metab Dispos. 1987 Mar-Apr;15(2):177-83 Male Sprague-Dawley rats.
pitavastatin	4.55 ± 0.13	infusion	210 min	Radioactive	421.5	anion		Hirano M, et.al. Mol Pharmacol. 2005 Sep;68(3):800-7 SD rat, 250-300g
PSC833 (Valspodar)	0.31	i.v	3 hr	Radioactive/HPLC	1214.6	neutral		Song S, et.al. Drug Metab Dispos. 1998 Nov;26(11):1128-33 Female Sprague-Dawley rats (10 weeks of age, weighing 220–270g). Original data:0.117~ 0.510 ml/min/kg.
rhodamine 123	2.36 ± 0.08	i.v	2 hr	Spectrophotometry	380.8	cation	P-gp	Kageyama M, et.al. Biol Pharm Bull. 2006 Apr;29(4):779-84 Male Wistar Rats, 300 ± 20g; Original data:42.50 ± 1.44 ml/h.

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	3.23 ± 0.28	i.v	100 min	Spectrophotometry				Kageyama M, et.al. Biol Pharm Bull. 2005 Feb;28(2):316-22 Male Wistar rats: 280 -320g. Original Data: 0.194 ± 0.017 L/hr/kg.
	7.45 ± 1.00	infusion	60 min	HPLC				Ando H, et.al. Antimicrob Agents Chemother. 2001 Dec;45(12):3462-7. Male Wistar rats: 280-300g. Original data: 2.16 ± 0.29 ml/min.
	2.93 ± 0.38	infusion	40 min	HPLC				Yumoto R, et.al. Drug Metab Dispos. 2001 Feb;29(2):145-51 Male Wistar rats weighing 230 to 300g.
	1.37 ± 0.075	i.v	120 min	Fluorescence				Kageyama M, et.al. Biol Pharm Bull. 2005 Jan;28(1):130-7 Male Wistar: 300 ± 20g; Original data: 24.72 ± 1.35 ml/h.
taurocholate	25.7 ± 1.24	i.v	3 hr	Radioactive	515.71	anion		Watkins JB, et.al. Drug Metab Dispos. 1987 Mar-Apr;15(2):177-83 Male Sprague-Dawley rats.
telithromycin	16 ± 0.76	infusion	60 min	HPLC	812	cation	Mrp2, P-gp	Yamaguchi S, et.al. Antimicrob Agents Chemother. 2006 Jan;50(1):80-7 Male SD rats, 270 - 280g. Original data: 4.41 ± 0.21 ml/min.
temocaprilat	9.7 ± 1.2	infusion		Radioactive	448.6	anion	Mrp2	Ishizuka H, et.al. J Pharmacol Exp Ther. 1999 Sep;290(3):1324-30 Male Sprague-Dawley (SD) rats.
terbutaline	0.41 ± 0.34	i.v	3 hr	Radioactive	225.28	cation		Eriksson H, et.al. Acta Physiol Scand. 1975 Sep;95(1):1-5 Mak SPF Sprague-Dawley mts, wetghing 250-300g. Original data: 0.12 - 0.98 ml/min/kg.
thyroxine (T4)	0.012	i.v	24 hr	Radioactive	776.87	anion	Mrp2, P-gp	Wong H, et.al. Toxicol Sci. 2005 Apr;84(2):232-42 Male Sprague-Dawley rats approximately 8–10 weeks old (~ 225-325g). Original data: 0.19 ± 0.06 ml/hr.
TR-14035	15.5 ± 2.9	i.v	4 hr	LC-MS	474.33	anion	Mrp2	Tsuda-Tsukimoto M, et.al. Pharm Res. 2006 Nov;23(11):2646-56 Male Sprague-Dawley rats weighing 250 to 320g.
triethylmethylammonium (TEMA)	0.090 ± 0.006	i.v	3 hr	Radioactive	117.24	cation		Hong SS,et.al. Pharm Res. 2000 Jul;17(7):833-8. Male Sprague-Dawley rats, 7 to 8 weeks of age.
	0.049 ± 0.006	i.v	up to 5 hr	Radioactive				Han YH, et.al. Drug Metab Dispos. 1999 Aug;27(8):872-9 Adult male Wistar rats (250–300g)
valsartan	12.5 ± 1.0	i.v	2 hr	Radioactive	435.5	anion	Mrp2	Yamashiro W, et.al. Drug Metab Dispos. 2006 Jul;34(7):1247-54 Male Sprague-Dawley (SD) rats (7–8 weeks old).
vincristine (VCR)	33.1 ± 2.73	i.v	2 hr	Radioactive/HPLC	811	cation	P-gp, Mrp2	Song S, et.al. Drug Metab Dispos. 1999 Jun;27(6):689-94 Female Sprague-Dawley (SD) rats weighing 220 to 270g.

Compounds in Test set	CLb (ml/min/kg)	Administration Route	Collection period	Analytical Method	Molecular Weight	Charge Status	Substrate of Efflux Transporter	Reference
BQ-123	28.2 ± 4.3	infusion	60 min	HPLC	610.7	anion	Mrp2	Kato Y, et.al. J Pharmacol Exp Ther. 1999 Feb;288(2):568-74 Male Sprague-Dawley rats weighing approximately 250 to 300g
cefixime (FK027)	1.41	infusion	3 hr	HPLC	453.45	anion		Yasui H, et.al. J Pharm Sci. 1994 Jun;83(6):819-23 Male Wistar rats (177 - 230g). Original Dat: % of Dose: 40.8; CL: 0.207 L/hr/kg.
cefmetazole	3.43	i.v.	90 min	HPLC	471.53	anion		Barrientos C, et.al. Clin Exp Pharmacol Physiol. 1993 Jun;20(6):399-404 Male Wistar rats weighing 230 - 270g. Original Data: % of Dose: 48.4; CLt: 1.77± 0.28 ml/min.
	6.76	i.v.	~120 min	HPLC				Eur J Drug Metab Pharmacinet. 1992 Jul-Sep;17(3):167-73 Male Wistar: 232-298g. Original data: % of Dose: 36.25 ± 16.9; CLtot (K10*V1): 1.79 ± 1.40 ml/min.
cefotetan (YM09330)	6.14	i.v.	24 hr	Bioassay	575.62	anion		Komiya M, et.al. Antimicrob Agents Chemother. 1981 Aug;20(2):176-83. SD rats: 200 - 350g. Original Dat: % of Dose: 48; CLtot: 767ml/h/kg.
compound I (Merck)	1.9 ± 0.5	i.v.	48 hr	HPLC	458.56	zwitter	P-gp	Prueksaritanont T, et.al. Xenobiotica. 2003 Nov;33(11):1125-37 Male Sprague-Dawley (SD) rats (200-320g).
compound II (Merck)	15.6 ± 5	i.v.	48 hr	HPLC	458.56	zwitter		Prueksaritanont T, et.al. Xenobiotica. 2003 Nov;33(11):1125-37 Male Sprague-Dawley (SD) rats (200-320g).
CP-671,305	8.25	i.v.	24 hr	LC/MS	454.41	anion	Mrp2	Kalgutkar AS, et.al. Xenobiotica. 2004 Aug;34(8):755-70 Male and female Sprague-Dawley rats (220-250g). % of Dose: 50 - 60. CLtot: 15.0 ± 3.41 ml/min/kg.
	1.5 ± 0.8	i.v.	24 hr	LC-MS/MS				Kalgutkar AS, et.al. Drug Metab Dispos. 2007 Nov;35(11):2111-8 Male Sprague-Dawley rats (230-250g)
DPDPE	18.5	i.v.	90 min	electropherogram	645.8	zwitter	Mrp2, P-gp	Chen C, et.al. Pharm Res. 1997 Mar;14(3):345-50 Male Sprague-Dawley rats (250-300g)
edatrexate	11.2	i.v.	4 hr	Radioactive/HPLC	467.48	anion		Fanucchi MP, et.al. Cancer Res. 1987 May 1;47(9):2334-9 Male CD rats. % of Dose (in total): 51 ± 4; Parent drug accounted for 85% of that. Clsys: 1.55 L/hr/kg.
erythromycin	17.36	i.v.	4 hr	HPLC	734	cation	Mrp2, P-gp	Lam JL, et.al. Drug Metab Dispos. 2006 Aug;34(8):1336-44. Male Wistar rats (200 - 350g). Original Data: 15.5 ± 2.9 and 11.2 ± 2.0 ml/min/kg. Partition coefficient of blood to plasma is 1.3.
	9.71	i.v.	105 min	LC/MS	9.711			Kageyama M, et.al. Biol Pharm Bull. 2005 Feb;28(2):316-22 Male Wistar rats (280-320 g). Original data: 0.448 ± 0.185 L/hr/kg. Also based on blood concentration.
grepafloxacin	1.79 ± 0.05	i.v.	3 hr	Radioactive/TLC	359.4	zwitter	Mrp2, P-gp	Sasabe H, et.al. J Pharmacol Exp Ther. 1998 Mar;284(3):1033-9. Male Sprague-Dawley rats weighing approximately 250 to 300g.
	2.55	i.v.	60 min	HPLC				Yamaguchi H, et. al. J Pharmacol Exp Ther. 2002 Mar;300(3):1063-9 Male Wistar rats, 200-240g. Original data: 0.56 ml/min.
	3.2	i.v.	60 min	HPLC				Yamaguchi H, et.al. Pharm Res. 2004 Feb;21(2):330-8. Male Wistar rats weighing 200-250g
	3.3	infusion	60 min	HPLC				Zhao YL, et.al. Clin Exp Pharmacol Physiol. 2002 Mar;29(3):167-72 Male Wistar rats, 270-295g. Original data: 1.02, 0.98 and 0.80 mL/min.
	0.487 ± 0.082 (R-) 0.399 ± 0.089 (S-) 0.735 ± 0.096	infusion infusion	160 min 160 min	HPLC HPLC				Sasabe H,et.al. J Pharmacol Exp Ther. 1998 Feb;284(2):661-8 Male Sprague-Dawley (SD) weighing approximately 250 to 300g Sasabe H, et.al. Biopharm Drug Dispos. 1999 Apr;20(3):151-8 Male SD rats weighing approximately 250-300g
merck compound A	13.2 ± 3.3	i.v.	24 hr	Radioactive/HPLC	552.16	zwitter		Giuliano C, et.al. Xenobiotica. 2005 Oct-Nov;35(10-11):1035-54 Male Sprague-Dawley rats weighing 250-300g. Original data: % of dose: 30; CLtot: 44 ± 11 ml/min/kg.
MK-571	7.85 (S-) 2.14 ( R- )	i.v.	24 hr	Radioactive	515.09	anion		Tocco DJ, et.al. Drug Metab Dispos. 1990 Jul-Aug;18(4):388-92 Male SD rats (approximatley 260g).Original data: % of Dose: 21. CLtot: 37.4 ± 7.0 (S-),10.2 ± 1.5 (R-) ml/min/kg

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moxalactam	2.19	i.v	24 hr	Radioactive	520.48	anion		Mizojiri K, et.al. Antimicrob Agents Chemother. 1987 Aug;31(8):1169-76 Male Sprague-Dawley rats (250 to 320g). Original Data: % of Dose: 24.5 ± 1.6; CLt: 8.94 ml/min/kg.
pravastatin	27.5 ± 5.1	infusion	120 min	Radioactive	424.5	anion	Mrp2	Sasaki M, et.al. Mol Pharmacol. 2004 Sep;66(3):450-9 Male SD rats, 240-260g
tributylmethylammonium (TBuMA)	4.886 ± 0.593	i.v	3 hr	Radioactive	201.4	cation	P-gp	Hong SS, et.al. Pharm Res. 2000 Jul;17(7):833-8. Male Sprague-Dawley rats, 7 to 8 weeks of age.
	9.6 ± 1.2	i.v	4 hr	Radioactive				Hong SS, et.al. Arch Pharm Res. 2005 Mar;28(3):330-4 Male Sprague-Dawley rats, 7 to 8 weeks of age.
	6.188 ± 1.35	i.v	7 hr	Radioactive				Lee IK, et.al. Arch Pharm Res. 2002 Dec;25(6):969-72 Male Sprague-Dawley rats (250-270g).
	16.5 ± 1.23	i.v	up to 5 hr	Radioactive				Han YH, et.al. Drug Metab Dispos. 1999 Aug;27(8):872-9 Adult male Wistar rats (250–300g)
UK-240,455	2.78	i.v		HPLC	368.19	anion		Webster R, et.al. Xenobiotica. 2003 May;33(5):541-60 Male Sprague–Dawley rats (300–350g). Original data: % of Dose: 23.2 ± 6.5; 12 ml/min/kg.
ulifloxacin (UFX)	2.1 ± 0.17	i.v	8-24 hr	HPLC	349.38	zwitter	P-gp	Yagi Y, et.al. Drug Metab Pharmacokinet. 2003;18(6):381-9 Male SD rats aged 7 weeks. Original Data: % of dose: 9.1 ± 2.0; CLtot: 23.1 ± 1.9 ml/min/kg.