

compounds	% dose excreted into bile in Dogs	Administration Route	Collection Period	Analytical Method	Molecular Weight	Charge Status	Reference
Antibiotics:							
Penicillin:							
ampicillin	3.98	infusion	40 min	Bioassay	349	zwitter	Johnson BL Jr, et.al. J Infect Dis. 1974 Jan;129(1):37-44 body weight: 11.7 - 24 kg
	7.33	infusion	140 min	Bioassay			Mandiola S, et.al. Surgery. 1972 May;71(5):664-74 mongrel dogs, body weight unknown, assuming to be 17.85 kg on average
Nafcillin	97	i.v.	24 hr	Bioassay	414.47	anion	GLASSMAN JM, et.al. Toxicol Appl Pharmacol. 1964 Mar;6:220-31 mongrel dogs (10 -14 kg)
	43 ± 10	infusion	1 hr	Bioassay			Barza M, et.al. J Infect Dis. 1975 May;131 Suppl:S86-97 mongrel dogs weighing 22.4 ± 1.6 kg
Methicillin	22	i.v.	24 hr	Bioassay	380.42	anion	Toxicol Appl Pharmacol. 1964 Mar;6:220-31 mongrel dogs (10 -14 kg)
Penicillin G	9	i.v.	24 hr	Bioassay	334.39	anion	Toxicol Appl Pharmacol. 1964 Mar;6:220-31 mongrel dogs (10 -14 kg)
	4.5 ± 2	infusion	1 hr	Bioassay			Barza M, et.al. J Infect Dis. 1975 May;131 Suppl:S86-97 mongrel dogs weighing 21.8 ± 1.6 kg±
Cephalosporins:							
cefaclor	0.4	i.v	6 hr	Radioactive Bioassay	367.81	zwitter	Sullivan HR, et.al. Antimicrob Agents Chemother. 1976 Oct;10(4):630-8 female mongrel dog, 14.0 kg
cefazolin (CEZ)	2.1	i.v.	6 hr		454.49	anion	Yoshikawa N, et.al. Jpn J Antibiot. 1979 Nov;32(11):1101-6
Cefotetan (YM09330)	17.4 ± 1.56	i.v	24 hr	Bioassay	575.62	anion	Komiya M, et.al. Antimicrob Agents Chemother. 1981 Aug;20(2):176-83. female beagle dogs weighing 8 to 16 kg
Cefotiam (SCE-963)	7.8	i.v.	6 hr		525.6	zwitter	Yoshikawa N, et.al. Jpn J Antibiot. 1979 Nov;32(11):1101-6
Cefozopran (SCE 2787)	0.28 ± 0.05	i.v.	24 hr	Bioassay	517.54	zwitter	Antimicrob Agents Chemother. 1992 Nov;36(11):2481-6. 7- to 12-month-old male and female Toyo beagle dogs weighing 8 to 13 kg
Cefpiramide (SM-1652)	19.1 ± 2.9	i.v	9 hr	Bioassay	612.64	anion	Matsui H, et.al. Antimicrob Agents Chemother. 1982 Aug;22(2):213-7. female beagle dogs (9.0 to 13.0 kg)

compounds	% dose excreted into bile in Dogs	Administration Route	Collection Period	Analytical Method	Molecular Weight	Charge Status	Reference
Cephalosporins (Cont'd):							
Cephalothin	1.5	infusion	1 hr	Bioassay	396.42	anion	Barza M, et.al. J Infect Dis. 1975 May;131 Suppl:S86-97 mongrel dogs weighing 27.4 ± 2.7 kg
flomoxef	0.02, 0.19	i.v.	4 hr	Bioassay	496.5	anion	Nakata K, et.al. Chemotherapy. 1992;38(5):340-9 Male beagles weighing 7.4-10.4 kg (mean 8.6 kg)
Quinolone Antibiotics:							
CP-74,667	4.2 ± 0.3	i.v.	72 hr	HPLC	371.41	zwitter	Girard D, et.al. Antimicrob Agents Chemother. 1992 Aug;36(8):1671-6 male beagle dogs (11 - 13 kg)
fleroxacin (AM-833)	5.5	i.v.	16 hr	HPLC	369.34	zwitter	Antimicrob Agents Chemother. 1986 Aug;30(2):304-9 Beagle dogs (8.5 to 13.0 kg)
gemifloxacin	9.4 28.1(total)	i.v	24 hr	Radioactive	389.39	zwitter	Drug Metab Dispos. 2001 Apr;29(4 Pt 1):435-42 male Beagle dogs (10–20 kg).
pefloxacin	5.3	i.v	8 hr	bioassay HPLC	333.4	zwitter	Montay G, et.al. Antimicrob Agents Chemother. 1984 Apr;25(4):463-72 female beagle dogs (13 to 16 kg)
Tetracyclines:							
DMCT (Declomycin)	4.45	i.v	24 hr	Bioassay	464.85	zwitter	von WITTEAU M, et.al. J Pharmacol Exp Ther. 1963 May;140:258-66 mongrel dogs
doxycycline (Vibramycin)	< 1.18	i.v	38 hr	Bioassay Radioactive	444.43	zwitter	von WITTEAU M, et.al. Chemotherapy. 1971;16(4):217-28
Methacycline (MOTC, Rondomycin)	2.05	i.v	24 hr	Bioassay	442.42	zwitter	von WITTEAU M, et.al. J Pharmacol Exp Ther. 1963 May;140:258-66 mongrel dogs
minocycline (MINO)	2.2	infusion	3 hr	Bioassay	457.48	zwitter	Barza M, et.al. Antimicrob Agents Chemother. 1975 Dec;8(6):713-20 mongrel dogs weighing 20 to 29 kg
Oxytetracycline (OTC, terramycin)	1.8	i.v	24 hr	Bioassay	460.43	zwitter	von WITTEAU M, et.al. J Pharmacol Exp Ther. 1963 May;140:258-66 mongrel dogs

compounds	% dose excreted into bile in Dogs	Administration Route	Collection Period	Analytical Method	Molecular Weight	Charge Status	Reference
Tetracyclines (Cont'd):							
tetracycline	0.67	infusion	3 hr	Bioassay	444.43	zwitter	Barza M, et.al. Antimicrob Agents Chemother. 1975 Dec;8(6):713-20 mongrel dogs weighing 20 to 29 kg
Rifampicin:							
rifamide	70	i.v.	3 hr	Bioassay	810.95	anion	Maffii G, et.al. Toxicol Appl Pharmacol. 1966 Jan;8(1):138-51 mongrel dogs weighing 12-16 kg
rifamycin SV	60	i.v.	3 hr	Bioassay	697.77	anion	Maffii G, et.al. Toxicol Appl Pharmacol. 1966 Jan;8(1):138-51 mongrel dogs weighing 12-16 kg
Other Antibiotics:							
actinomycin D	5	i.v.	6 hr	Radioactive/TLC	1255.45	neutral	Galbraith WM, et.al. Cancer Chemother Rep. 1975 Nov-Dec;59(6):1061-9 beagle dogs
clindamycin	< 0.114	infusion	2 hr	Bioassay	424.98	cation	Brown RB, et.al. J Infect Dis. 1975 Mar;131(3):252-60 Healthy mongrel dogs (15-35 kg)
kanamycin	0.1	i.v.	8 hr		484.5	cation	Arch Surg. 1968 Jul;97(1):46-50 Female mongrel dogs
Lincomycin	3.12	infusion	2 hr	Bioassay	406.54	cation	Brown RB, et.al. J Infect Dis. 1975 Mar;131(3):252-60 Healthy mongrel dogs (15-35 kg)
	5.2	i.v.	8 hr				Wyman JB, et.al. Arch Surg. 1968 Jul;97(1):46-50 Female mongrel dogs
nitrofurantoin	15.3 - 22.6	i.v.	6 hr	Spectrophotometric	238.16	anion	Conklin JD, et.al. Br J Pharmacol. 1971 Sep;43(1):140-50 Male Beagle Dogs (10 - 16kg)
Anti-Cancer Drugs:							
Ametantrone (NSC 287513)	39.5	i.v.	5 hr	Chromatography	412.48	cation	Lu K, et.al. Cancer Res. 1980 May;40(5):1427-30 Beagles of either sex, 8 to 12 kg
Amonafide	7.4 ± 1.4	i.v.	6 hr	HPLC	283.33	cation	Lu K, et.al. Cancer Chemother Pharmacol. 1988;21(2):134-8 Mongrel dogs of either sex, weighing 15-20 kg.

compounds	% dose excreted into bile in Dogs	Administration Route	Collection Period	Analytical Method	Molecular Weight	Charge Status	Reference
Anti-Cancer Drugs (Cont'd):							
colchicine	6.8	i.v	2 hr	Radioactive	399	neutral	Hunter AL, et.al. J Pharmacol Exp Ther. 1975 Mar;192(3):605-17. mongrel dogs (7-12 kg)
daunomycin (Daunorubicin)	< 1	i.v.	4 hr	fluorescence	527.5	cation	Yesair DW, et.al. Cancer Res. 1972 Jun;32(6):1177-83 Female beagle dogs (7 to 10 kg)
doxorubicin (adriamycin)	10 ± 2.3	i.v.	8 hr	HPLC	543.53	cation	Iguchi H, et.al. Jpn J Antibiot. 1986 Feb;39(2):638-52 Beagle dogs (weighing 9 - 11 kg)
5-Fluorouracil	0	infusion		Microbiology	130.08	anion	Gustavsson BG, et.al. J Pharmacokinet Biopharm. 1979 Dec;7(6):665-73 mongrel dogs weighing 17 ± 1 kg
melphalan	8.8	i.v	30 min	Radioactive	305.21	zwitter	Furner RL, et.al. Cancer Treat Rep. 1977 Dec;61(9):1637-46 Female beagle dogs
Mitoxantrone	3.0 ± 0.1 4 (total)	i.v.	5 hr	Radioactive LC	444.49	cation	Cancer Chemother Pharmacol. 1984;13(1):63-6 Beagles of both sexes weighing 8-12 kg
NSC-4728 (Aminothiadiazole)	0.3	i.v.	5 hr	Radioactive Chromatography	101.13	neutral	Lu K, et.al. Cancer Chemother Pharmacol. 1980;4(4):275-9 Beagle dogs, 9 - 12kg
Pirarubicin (THP) ((2" ^R) ⁻ 4'-O-tetrahydropyranyladriamycin)	1.2 ± 0.43	i.v.	8 hr	HPLC	627.65	cation	Iguchi H, et.al. Jpn J Antibiot. 1986 Feb;39(2):638-52 Beagle dogs (weighing 9 - 11 kg)
vincristine	6	i.v	24 hr	Radioactive	825	cation	EI Dareer SM, et.al. Cancer Treat Rep. 1977 Oct;61(7):1269-77 female dogs: 7.8 - 10.2 kg.
Anti-HIV agents:							
lopinavir	1.4	i.v	6 hr	Radioactive	628.8	neutral	Kumar GN, et.al. Pharm Res. 2004 Sep;21(9):1622-30 beagle dogs
ritonavir (RTV)	0.6	i.v	6 hr	Radioactive	721	neutral	Denissen JF, et.al. Drug Metab Dispos. 1997 Apr;25(4):489-501 female beagle dogs, weighing 6–12 kg

compounds	% dose excreted into bile in Dogs	Administration Route	Collection Period	Analytical Method	Molecular Weight	Charge Status	Reference
Anti-HIV agents (Cont'd):							
Tenofovir (PMPA)	< 0.3	i.v.	48 hr	Radioactive	287.21	anion	Cundy KC, et.al. Antimicrob Agents Chemother. 1998 Mar;42(3):687-90 Male beagle dogs
Digoxin-like compounds:							
Digitoxin	7.1 (total)	i.v.	24 hr	Radioactive	764.96	neutral	Am J Vet Res. 1990 Apr;51(4):605-10 2 dogs body weight 11.5 +/- 0.63
ouabain	0.5	i.v	2 hr	Radioactive	584.65	neutral	Russell JQ, et.al. J Pharmacol Exp Ther. 1972 Dec;183(3):513-9 male mongrel dogs (7-15 kg)
	4.2	i.v	4 d	radioactive			Selden R, et.al. J Pharmacol Exp Ther. 1974 Mar;188(3):615-23 18 to 25 kg adult female mongrel dogs
Steroids:							
osaterone acetate	13.6 ± 3.4 37.1 (total)	i.v.	96 hr	Radioactive	406.9	neutral	Minato K, et.al. Drug Metab Dispos. 2002 Feb;30(2):167-72 Four beagle dogs weighing 8 to 10 kg
Strophanthidin	1.5, 2.1	i.v.		Radioimmunoassay	404.5	neutral	Selden R, et.al. Circulation. 1973 Apr;47(4):744-51 17-25-kg mongrel dogs.
Dye:							
Bromophenol blue	92.3 - 98.9	i.v.		Absorbance	669.96	anion	Wills RJ, et.al. J Pharm Sci. 1984 Jul;73(7):928-32 One female and two male beagles, weighing 11-18 kg
indocyanine green (ICG)	97.3 ± 3.13	i.v	5 hr	Spectrophotometry	755.01	anion	WHEELER HO, et.al. Proc Soc Exp Biol Med. 1958 Oct;99(1):11-4 female dogs weighing 18.9 and 22.0 kg.
	53	i.v	4 hr	Radioactive			Tazuma S, et.al. Am J Physiol. 1988 Dec;255(6 Pt 1):G745-51 Female mongrel dogs (~ 20kg)
Phenol Red	34.7	i.v	4 hr	Radioactive	354	anion	Tazuma S, et.al. Am J Physiol. 1988 Dec;255(6 Pt 1):G745-51 Female mongrel dogs (~ 20kg)
Rose bengal	67	i.v	4 hr	Radioactive	973.68	anion	Tazuma S, et.al. Am J Physiol. 1988 Dec;255(6 Pt 1):G745-51 Female mongrel dogs (~ 20kg)
sulfbromophthalein (BSP)	11.6	i.v	4 hr	Radioactive	794.03	anion	Tazuma S, et.al. Am J Physiol. 1988 Dec;255(6 Pt 1):G745-51 Female mongrel dogs (~ 20kg)

compounds	% dose excreted into bile in Dogs	Administration Route	Collection Period	Analytical Method	Molecular Weight	Charge Status	Reference
sulfobromophthalein (BSP)	10.3	infusion	90 - 120min	Spectrophotometry			Barnhart JL, et.al. Am J Physiol. 1976 Aug;231(2):399-407 Mongrel dogs
Quaternary Ammonium:							
emepronium	3.8	i.v.	19 - 24 hr	GC	283.46	cation	Hallén B, et.al. Acta Pharmacol Toxicol (Copenh). 1979 Jan;44(1):43-59
	4	i.v.	17 hr				female Beagle dogs (weighmg 10 to 14 kg)
	1.54	i.v.	3 hr	Radioactive			
17-hydroxy Org NC-45 (17-hydroxy vecuronium)	6.7 (total)	i.v./infusion	5 hr		517	cation	Booij LH, et.al. Anaesthesist. 1981 Jul;30(7):329-33 Beagle dogs
procaine amide ethobromic (PAEB)	1.28	i.v.	90 min		265.4	cation	Proc Soc Exp Biol Med. 1972 Apr;139(4):1445-50 mongrel dogs (weighing 7.6 to 11kg)
pipecuronium	4.5 ± 2.2	i.v.	8 hr	GC	604.92	cation	Khuenl-Brady KS, et.al. Anesthesiology. 1989 Dec;71(6):919-22. female beagle dogs weighing 16-20 kg
prifinium	23.0 ± 2.49	i.v.	8 hr	Radioactive	307.48	cation	Nakai T, et.al. Arzneimittelforschung. 1970 Aug;20(8):1112-9 Female mongrel dogs weighing 9 to 15 kg
d-tubocurarine	10.68	i.v.	24 hr	Radioactive	612.8	cation	Cohen EN,, et.al. Anesthesiology. 1967 Mar-Apr;28(2):309-17 mongrel dogs, average weight 17.2 kg
NSAIDs:							
carprofen	2.25 ± 0.52	i.v.	5 hr	Radioactive/TLC	273.71	anion	Rubio F, et.al. J Pharm Sci. 1980 Nov;69(11):1245-53 beagle dogs
Diclofenac	trace 65 (total)	i.v.	6 hr	Radioactive TLC	296	anion	Tsuchiya T, et.al. Arzneimittelforschung. 1980;30(10):1650-3 Beagle or mongrel dogs of either sex, weighing 6 to 10 kg.
indomethacin	3.8	i.v.	6 hr	Radioactive	357.8	anion	Hucker HB, et.al. J Pharmacol Exp Ther. 1966 ;153(2):237-249 Beagle dogs
salicylate	1.56 ± 0.33	i.v.	3 hr		138.12	anion	Rutishauser SC, et.al. J Physiol. 1975 Mar;245(3):549-65 Mongrel dogs

compounds	% dose excreted into bile in Dogs	Administration Route	Collection Period	Analytical Method	Molecular Weight	Charge Status	Reference
NSAIDs (Cont'd):							
tolfenamic acid	< 9 90 (total)	i.v.			261.71	anion	Priymenko N, et.al. J Pharmacol Exp Ther. 1993 Dec;267(3):1161-7 Five beagle dogs of both sexes (10 - 15 kg).
Wy-41,770	~ 0	i.v.	4 hr	Radioactive HPLC	248.28	anion	Drug Metab Dispos. 1986 Jul-Aug;14(4):405-12 male beagle dogs (I 1.5 and 12.5 kg)
Opiates:							
buprenorphine	0.11, 0.92	infusion	26 hr	HPLC	467.64	cation	Garrett ER, et.al. Biopharm Drug Dispos. 1990 May-Jun;11(4):311-50 mongrel male dogs
morphine	0.17	i.v.	26 hr	HPLC	285.34	cation	Garrett ER, et.al. Biopharm Drug Dispos. 1990 May-Jun;11(4):311-50 mongrel male dogs
naloxone	0	i.v.	10 hr	HPLC	327.37	cation	Garrett ER, et.al. J Pharm Sci. 1986 Dec;75(12):1127-36 mongrel dogs (20.5 and 18.5 kg)
Naltrexone	0	i.v.	12 hr	HPLC	341.4	cation	Garrett ER, et.al. J Pharm Sci. 1985 Jan;74(1):50-6 Healthy mongrel dogs with average weights of 23.1 (23.8 and 22.3 kg)
β2-adrenoceptor agonist:							
picumeterol	1.44 14.4 (total)	i.v.		Radioactive HPLC	426.38	cation	Barrow A, et.al. Xenobiotica. 1995 Sep;25(9):993-1007 Three male beagle dogs (10-14 kg).
salmeterol	< 2.16	i.v.	8 hr	Radioactive	415.57	cation	Manchee GR, et.al. Drug Metab Dispos. 1993 Nov-Dec;21(6):1022-8. beagle dogs (9.2 -12.5 kg)
Terbutaline	1.7 (total)	i.v.	6 hr	Radioactive	225.29	cation	Nilsson HT, et.al. Xenobiotica. 1973 Sep;3(9):615-23 female beagle dogs
β-blocker:							
alprenolol	1	i.v.	6 hr	Radioactive	249.36	cation	Bodin NO, et.al. Acta Pharmacol Toxicol (Copenh). 1974 Oct;35(4):261-9 Beagle Dogs, 10kg
sotalol	0.73 (total)	i.v.	30 hr	Radioactive	272.36	zwitter	Schnelle K, et.al. J Pharm Sci. 1973 Mar;62(3):362-75 mongrel dogs

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Angiotensin converting enzyme (ACE) inhibitor:							
captopril	0.06 ± 0.03	infusion	12 hr	Radioactive/TLC	217.29	anion	Singhvi SM, et.al. J Pharm Sci. 1981 Oct;70(10):1108-12 Male beagle dogs (9 - 11kg)
temocaprilat	25	infusion		Radioactive	448.6	anion	Ishizuka H, et.al. J Pharmacol Exp Ther. 1999 Sep;290(3):1324-30 beagle dogs
Cholecystogram Contrast Agents:							
iodipamide	38.7	i.v	4 hr	Radioactive	1140	anion	Tazuma S, et.al. Am J Physiol. 1988 Dec;255(6 Pt 1):G745-51
	51 ± 3.51	i.v	4 hr	x-ray fluorescent			Nelson JA, et.al. Invest Radiol. 1973 May-Jun;8(3):126-30. Adult mongrel dogs (20-30 kg).
	53	infusion	3 hr	fluorescent			Burgener FA, et.al. Invest Radiol. 1978 May-Jun;13(3):255-63 male mongrel dogs weighing 23 - 36 kg each.
	46.8	infusion		thiosulfate titration			Loeb PM, et.al. Gastroenterology. 1975 Mar;68(3):554-62 Adult mongrel dogs weighing 17 - 30 kg
Iodoxamate (iodoxamic acid)	56.3	infusion	1 hr	Spectrophotometry	1287.97	anion	Evill CA, et.al. Invest Radiol. 1976 SEP-OCT;11(5):459-63 female labrador dogs each weighing 31 kg.
	54	infusion	3 hr	fluorescent			Burgener FA, et.al. Invest Radiol. 1978 May-Jun;13(3):255-63 male mongrel dogs weighing 23 - 36 kg each.
	74	i.v.	6 hr	TLC			Pitrè D, et.al. Farmaco Sci. 1974 Oct;29(10):793-801
	72	infusion					mongrel dog, 16 - 19.5 kg.
ioglycamide	16.2	infusion		Spectrophotometry	1127.71	anion	Tötterman S, et.al. Eur J Radiol. 1983 Feb;3(1):77-80 mongrel dogs weighing 14 to 24 kg.
lopamidol	0.25	i.v.	7 hr	HPLC/TLC	777.09	neutral	Pitrè D, et.al. Farmaco Sci. 1980 Oct;35(10):826-35 Mongrel dogs weighing 10.5 to 15 kg.
lopanoic acid	0	infusion	4 hr	Radioactive TLC	570.93	anion	Cooke WJ, et.al. Invest Radiol. 1975 Jan-Feb;10(1):25-34 adult mongrel dogs (8.6-20 kg).

compounds	% dose excreted into bile in Dogs	Administration Route	Collection Period	Analytical Method	Molecular Weight	Charge Status	Reference
Other Compounds:							
A-74273	4.15 79.8 (total)	i.v.	6 hr	Radioactive	787.08	cation	Denissen JF, et.al. Drug Metab Dispos. 1994 Nov-Dec;22(6):880-8 Beagle dogs, weighing 7- 10 kg
AA-149	3.1	i.v.	1 hr	GC	310.34	anion	Satoh H, et.al. Eur J Pharmacol. 1978 Mar 1;48(1):125-32 beagle dogs of either sex (8.7 ± 0.2 kg)
4-aminohippuric acid (p-Aminohippuric acid)	3.4	i.v	3 hr		194	anion	Abou-El-Makarem MM, et.al. Biochem J. 1967 Dec;105(3):1289-1293 Female mongrel dogs, 7.0 ± 1.5 kg
4-aminopyridine	0.01 ± 0.01	i.v.	10 hr	HPLC	94.11	cation	Rupp SM, et.al. J Pharmacol Exp Ther. 1983 May;225(2):351-4 mongrel dog (weights 20-32 kg)
aprepitant	3	i.v	48 hr	Radioactive	534.43	cation	Huskey SE, et.al. Drug Metab Dispos. 2004 Feb;32(2):246-58 male beagle dogs (10–14 kg)
benzoic acid	0.47	i.v	3 hr		122.12	anion	Abou-El-Makarem MM, et.al. Biochem J. 1967 Dec;105(3):1289-1293 Female mongrel dogs, 7.0 ± 1.5 kg
Bilirubin	0.15	i.v	4 hr	Radioactive	585	anion	Tazuma S, et.al. Am J Physiol. 1988 Dec;255(6 Pt 1):G745-51 Female mongrel dogs (~ 20kg)
bumetanide	5.27	i.v.	6 hr	Radioactive TLC	364.42	anion	Kolis SJ, et.al. Drug Metab Dispos. 1976 Mar-Apr;4(2):169-76 male Mongrel Dogs
butoprozine	0	i.v.	6 hr	Radioactive	434.63	cation	Overzet F, et.al. Xenobiotica. 1985 Jan;15(1):1-10 male Beagle dogs (15 kg body wt.)
camostat	< 1.3	i.v.	2 hr	HPLC	398.41	cation	Kitagawa M, et.al. Digestion. 1988;39(4):204-9. mongrel dogs weighing between 15 and 18 kg
Chromonar	< 2.2 22 (total)	i.v.	4 hr	Fluorescence TLC	361.43	cation	Martin YC, et.al. J Pharm Sci. 1970 Sep;59(9):1313-8 Female mongrels dogs (5.5 kg, 14 kg.)

compounds	% dose excreted into bile in Dogs	Administration Route	Collection Period	Analytical Method	Molecular Weight	Charge Status	Reference
CP-671,305	12	i.v	24 hr	LC/MS	454.41	anion	Kalgutkar AS, et.al. Xenobiotica. 2004 Aug;34(8):755-70 beagle dogs (9–13 kg)
cromoglycate	63.8	i.v.	5 hr	Radioactive	468.38	anion	Ashton MJ, et.al. Toxicol Appl Pharmacol. 1973 Nov;26(3):319-28 Male beagle dog 11-13 kg.
DA-1131	2.71	i.v.	8 hr	HPLC	445.55	zwitter	Biopharm Drug Dispos. 1998 May;19(4):219-29 Beagle Dog (8 - 11kg)
dantrolene	0	i.v.		HPLC	314.26	anion	Wuis EW, et.al. Int J Clin Pharmacol Res. 1990;10(4):203-10 Three beagle dogs (10.7, 11.4, 14.5 kg)
5-OH-dantrolene	27	i.v.		HPLC	330.26	anion	Wuis EW, et.al. Int J Clin Pharmacol Res. 1990;10(4):203-10 Three beagle dogs (10.7, 11.4, 14.5 kg)
dapsone	0.047	i.v.	4 hr	Chromatography	248.3	neutral	Biggs JT Jr, et.al. Antimicrob Agents Chemother. 1975 Jun;7(6):816-24 female mongrel dogs, 13 - 21 kg
Diethylstibestrol	0.425	i.p.v.	4 hr	Radioactive	268.36	neutral	Tazuma S, et.al. Am J Physiol. 1988 Dec;255(6 Pt 1):G745-51 Female mongrel dogs (~ 20kg)
dihydroergocristine	6.84 36.60 (total)	i.v.	5 hr	Radioactive Chromatography	611.73	cation	Marzo A, et.al. Farmaco Prat. 1978 Nov;33(11):477-83 beagle dogs.
dihydroergotamine	9.46 29.47 (total)	i.v.	5 hr	Radioactive Chromatography	583.68	cation	Marzo A, et.al. Farmaco Prat. 1978 Nov;33(11):477-83 beagle dogs.
diperidipine	0.103	i.v	7 hr	HPLC	457.53	cation	Greiner PO, et.al. Eur J Drug Metab Pharmacokinet. 1990 Jul-Sep;15(3):185-90 male mongrel dogs, 19-21 kg
Doxapram	0	i.v.	4 hr	Spectrophotometry	378.51	cation	BRUCE RB, et.al. J Med Chem. 1965 Mar;8:157-64 Mongrel Dogs
fluphenazine	0	i.v.	7 hr	Radioactive	437.53	cation	Dreyfuss J, et.al. J Pharm Sci. 1971 Jun;60(6):821-5 Beagle dogs (7.8 - 14.9 kg)

compounds	% dose excreted into bile in Dogs	Administration Route	Collection Period	Analytical Method	Molecular Weight	Charge Status	Reference
gallamine	3.5 ± 1.4 (total)	i.v	12 hr	Radioactive	423.64	cation	Feldman SA, et.al. Anesthesiology. 1969 Jun;30(6):593-8 mongrel dogs (16.3-23.5 kg)
glaziovine	28.2 ± 4.05	i.v	5 hr	Radioactive	297.1	cation	Marzo A, et.al. Arch Int Pharmacodyn Ther. 1977 Jun;227(2):254-62 beagles dogs
glutethimide	0.21 ± 0.16	i.v.	24 - 48 hr		217.27	neutral	Charytan C, et.al. Clin Pharmacol Ther. 1970 Nov-Dec;11(6):816-20 mongrel dogs (15 to 25 kilograms)
griseofulvin	0	i.v.	18 hr	TLC	352.77	neutral	Harris PA, et.al. J Pharm Sci. 1969 Jan;58(1):93-6 Male mongrel dogs weighing between 20 and 25 kg.
homoharringtonine	2 14.4 (total)	i.v.	5 hr	Radioactive HPLC	545.62	neutral	Lu K, et.al. Cancer Chemother Pharmacol. 1988;21(2):139-42 Mongrel dogs of either sex, average weight 20 kg
hydrochlorothiazide	3.9 (total ?)	i.v.	1 hr	Radioactive	297.74	neutral	PRATT EB,, et.al. Am J Physiol. 1962 Jun;202:1083-6 Mongrel Dogs (15 - 20kg)
4-iodoantipyrine (RIAP)	< 1.7	i.v.	1 hr	Radioactive	314.13	neutral	STRAUB WH, et.al. Proc Soc Exp Biol Med. 1964 Aug-Sep;116:1119-22
iodochlorhydroxyquin (Clioquinol)	0.27 27 (total)	i.v.	2 hr	Radioactive TLC	305.5	Anion	Jurima M, et.al. J Pharmacobiodyn. 1984 Mar;7(3):164-70. Two mongrel dogs
isotretinoin (retinol)	0.07, 0.23	i.v	12 hr	HPLC	300.44	anion	Cotler S, et.al. Drug Metab Dispos. 1984 Mar-Apr;12(2):143-7 Beagle dogs ranging in weight from 10 to 12.8 kg.
laudanosine	~ 0.1	i.v.	4 hr	LC	357.44	cation	Hennis PJ, et.al. Anesthesiology. 1986 Jul;65(1):56-60 mongrel dogs, weighing 20-35 kg
MRL-C	< 1.78 89 (total)	i.v.	120 hr	Radioactive HPLC		anion	Drug Metab Dispos. 2005 Dec;33(12):1894-904. male beagle dogs
napsagatran	97	i.v.	24 hr	HPLC	558.6	zwitter	Lavé T, et.al. J Pharm Pharmacol. 1999 Jan;51(1):85-91 Male Beagle dogs (14 ± 17 kg)

compounds	% dose excreted into bile in Dogs	Administration Route	Collection Period	Analytical Method	Molecular Weight	Charge Status	Reference
Nortrimethadione (DMO)	0.4	i.v.	1 hr	Spectrophotometer	129.12	anion	Noda A, et.al. Am J Dig Dis. 1973 Jun;18(6):498-505 mongrel dogs weighing 9.2 to 18 kg
papaverine	0	i.v.	6 hr	Radioactive	339.39	neutral	Xenobiotica. 1975 Jul;5(7):421-9 Male dogs (5 -10 kg)
(-)-3-phenoxy-N-methylmorphine (PMM)	0 46.2 (total)	i.v.	8 hr	Radioactive TLC	333.47	cation	Leinweber FJ, et.al. Drug Metab Dispos. 1981 May-Jun;9(3):284-91
procainamide	< 0.2	i.v.	6 hr		235.33	cation	Weily HS, et.al. Arch Intern Med. 1972 Sep;130(3):366-9 Twenty mongrel dogs (15 to 20 kg)
	1.4 (total)	i.v.	7 hr	Radioactive			Dreyfuss J, et.al. Arzneimittelforschung. 1971 Jul;21(7):948-51 beagle-dogs
remikiren	27.7	i.v	48 hr	Radioactive/HPLC	630.8	neutral	Coassolo P, et.al. Xenobiotica. 1996 Mar;26(3):333-45 male beagle dogs (aged 4-7 years, weight 16-20 kg).
simvastatin	2.55	i.v	24 hr	Radioactive	418.58	neutral	Vickers S, et.al. Drug Metab Dispos. 1990 Mar-Apr;18(2):138-45. purebred beagle dogs (8 - 10kg)
sitagliptin	3.08	i.v.	3 d	Radioactive LC/MS/MS	407.31	cation	Beconi MG, et.al. Drug Metab Dispos. 2007 Apr;35(4):525-32 Male Beagle Dog (11 - 14kg)
Succinylsulphathiazole	20 (19-22)	i.v	3 hr		355	anion	Abou-EI-Makarem MM, et.al. Biochem J. 1967 Dec;105(3):1289-1293 Female mongrel dogs, 7.0 ± 1.5 kg
sumatriptan	\leq 1	i.v.	5 hr	Radioactive HPLC	295.4	cation	Barrow A, et.al. Biopharm Drug Dispos. 1997 Jul;18(5):443-58 Beagle dogs (7 ± 11 kg)
susalimod	49.5	infusion		Radioactive	408.43	anion	Påhlman I, et.al. Pharmacol Toxicol. 1999 Sep;85(3):123-9 Beagle dogs
Taurocholate	61.4 ± 5	i.v.	45 min	Radioactive	515.71	anion	Grandjean EM, et.al. Scand J Gastroenterol. 1979;14(8):955-60 boxer dogs (21kg)

compounds	% dose excreted into bile in Dogs	Administration Route	Collection Period	Analytical Method	Molecular Weight	Charge Status	Reference
theophylline	1.05	i.v.	8 hr	HPLC	180.17	neutral	Mckinnon RS, et.al. J Pharm Pharmacol. 1987 Jul;39(7):522-5 Mongrel dog
	1.89, 2.38	infusion	12 hr	HPLC			Kulig KW, et.al. Ann Emerg Med. 1987 Aug;16(8):842-6 Mongrel adult dogs weighing 14 to 25 kg
TPBE	2.6	i.v	8 hr	Radioactive	628.73	cation	Dow J, et.al. Xenobiotica. 1982 Oct;12(10):633-43 male pedigree beagle dogs (1 1-14 kg body weight)
TR-14035	28.3	i.v.	4 hr	HPLC	474.33	anion	Tsuda-Tsukimoto M, et.al. Xenobiotica. 2005 Apr;35(4):373-89 Male beagle dogs weighting 9.9 - 11.2 kg.
Trichloroethylene	0.044 1.1 (total)	i.v.	2 hr		131.39	neutral	Toxicol Lett. 1986 Jul-Aug;32(1-2):119-22 Mongrel dogs (8-12 kg body weight).
Chloral hydrate (CH)	0.58 19.2 (total)	i.v.	2 hr		165.4	neutral	Toxicol Lett. 1986 Jul-Aug;32(1-2):119-22 Mongrel dogs (8-12 kg body weight).
Trichloroethanol	0.25 19.1 (total)	i.v.	2 hr		149.4	neutral	Toxicol Lett. 1986 Jul-Aug;32(1-2):119-22 Mongrel dogs (8-12 kg body weight).
Trichloroacetic acid (TCA)	1	i.v.	2 hr		163.39	anion	Toxicol Lett. 1986 Jul-Aug;32(1-2):119-22 Mongrel dogs (8-12 kg body weight).
zafirlukast	37.9 88.2 (total)	i.v.	48 hr	Radioactive HPLC	575.68	anion	Savidge RD, et.al. Drug Metab Dispos. 1998 Nov;26(11):1069-76 male beagle dogs, weighing 9 –14 kg.