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Transporters and Renal Drug Elimination
Lee and Kim, 2004

SUPPLEMENTARY TABLE Substrate and inhibitor specificities of renal transporters

Name		Substrates (Km)	Inhibitors (Ki)[a]	References
OAT1 (*SLC22A6*)	Human	PAH (4-15 μM), α-KG, indoxyl sulfate Drugs: acylclovir (342 μM), adefovir (24, 30 μM), AZT (46 μM), cidofovir (46, 58 μM), ganciclovir (896 μM), MTX (554 μM), PMEDAP, PMEG	Probenecid (12 μM), DIDS, fluorescein, glutarate, hippurate, urate Drugs: benzylpenicillin, betamipron (24 μM), bumetanide, cilastatin (1.5 mM), furosemide, ibuprofen, indomethacin, ketoprofen, losartan, mefenamic acid, phenylbutazone, salicylate	(1--9)
Oat1 (*Slc22a6*)	Rat	PAH (14, 70 μM), α-KG, cAMP, cGMP, folate, ochratoxin A (2 μM), PGE_2, urate Drugs: acetylsalicylate, acyclovir (242 μM), adefovir (270 μM), AZT (68 μM), benzylpenicillin, cephaloridine, cidofovir (238 μM), didanosine, indomethacin (10 μM), lamivudine, MTX, PMEDAP, PMEG, salicylate (341 μM), stavudine, trifluridine, zalcitabine	Probenecid, BCG, glutaRate, mezerein, phorbol 12-myristate 13-acetate, phorbol 12,13-dibutyRate Drugs: acetaminophen (2 mM), carbenicillin (500 μM), cefazolin (450 μM), cefoperazone, cephalexin (2.3 mM), cephalothin (290 μM), chlorpropamide (39.5 μM), cinoxacin, ethacrynic acid, furosemide, glibenclamide (1.6 μM), ibuprofen (3.5 μM), ketoprofen, naproxen (2 μM), nateglinide (9.2 μM), oxyphenbutazone (32 μM), phenacetin (488 μM), piroxicam (52 μM), salicylurate (11 μM), tolbutamide (55.5 μM), valproate	(5, 10--17)
OAT2 (*SLC22A7*)	Human	PAH, α-KG, cAMP, PGE_2 (713 nM), $PGF_{2\alpha}$ (425 nM) Drugs: AZT (27 μM), MTX	Probenecid (766 μM), BSP Drugs: cefamandole (0.4 mM) cefazolin (5.1 mM), cefoperazone (1.1 mM), cefotaxime (5.2 mM), ceftraxone (6.8 mM), cephadroxil (6.4 mM), cephaloridine (2.1 mM), cephalothin (1 mM), diclofenac (14 μM), ibuprofen (692 μM), ketoprofen (400 μM), mefenamic acid	(7, 18--21)
Oat2 (*Slc22a7*)	Rat	PAH, α-KG (18 μM), PGE_2, $PGF_{2\alpha}$ (414 nM) Drugs: acetylsalicylate, AZT (26 μM), indomethacin (0.37 μM), MTX, salicylate (89 μM), zalcitabine (3 μM)	BSP, cholate, ICG Drugs: bumetanide, cefamandole, cefazolin , cefoperazone, cefotaxime, ceftraxone, cephadroxil, cephaloridine, cephalothin, diclofenac (49 μM), enalapril, glibenclamide, ibuprofen (155 μM), ketoprofen (2 μM), rifampicin, verapamil	(20, 22, 23)

OAT3 (*SLC22A8*)	Human	PAH (87 μM), cAMP, DHEA-S, estrone-S (3 μM), $E_2$17βG, glutarate, indoxyl sulfate, ochratoxin A, PGE_2 (345 nM), urate Drugs: AZT (145 μM), cimetidine (57 μM), MTX (21, 11 μM), salicylate	Probenecid (9 μM), BSP, cholate, corticosterone, TEA Drugs: benzylpenicillin, betamipron (48 μM), bumetanide, cilastatin (231 μM), diclofenac, furosemide, ibuprofen, indomethacin, KW-3902 (4 μM), mefenamic acid, quinidine	(4, 7, 8, 24, 25)
Oat3 (*Slc22a8*)	Rat	PAH (65 μM), estrone-S (2.3 μM), indoxyl sulfate, ochratoxin A (0.74 μM) Drugs: benzylpenicillin, cimetidine	Probenecid, BSP, cholate, DIDS, ICG, taurocholate, acidic metabolites of neurotransmitters Drugs: AZT, bumetanide, cefoperazone, furosemide, MTX, piroxicam, quinidine	(25, 26)
OAT4 (*SLC22A11*)	Human	PAH (65 μM), DHEA-S (0.63 μM), estrone-S (1 μM), ochratoxin A (23 μM) Drugs: AZT (152 μM), cimetidine, MTX (17.8 μM)	Probenecid (54.9, 44.4 μM), BSP, citrinin (366 μM), corticosterone, β-estradiol sulfate, octanoate (236 μM) Drugs: benzylpenicillin, betamipron (502 μM), bumetanide, diclofenac, furosemide, ibuprofen, indomethacin, KW-3902 (20.7 μM), mefenamic acid, piroxicam (108 μM)	(4, 7, 19, 27, 28)
Oatp1 (*Slc21a1*)	Rat	LTC_4 (0.27 μM), BSP (1.5, 3 μM), DHEA-S (5 μM), DNP-SG (408 μM), APD-ajmalinium, N-methylquinidine, aldosterone (15 nM), cortisol (13 nM), $E_2$17βG (3-11 μM), estrone-S (4.5-11 μM), ochratoxin A (17, 29 μM), thyroid hormones Bile acids: cholate (54 μM), glycocholate (54 μM), sulfotaurolithocholate (6 μM), taurocholate (19-50 μM), TCDCA (7 μM), TUDCA (13 μM) Drugs: BQ123 (600 μM), CRC220 (57 μM), deltorphin II (137 μM), dexamethasone, digoxin, DPDPE (48 μM), enalapril (214 μM), fexofenadine (32 μM), gadoxetate (3.3 mM), ouabain (1.7, 3 mM), pravastatin (30 μM), temocrapilat (47 μM), rocuronium	Probenecid, testosterone-17β-D-glucuronide (4 μM), corticosterone (5 μM), corticosterone 21-sulfate (2 μM), aldosterone, hydrocortisone, androsterone (11 μM), androsterone-3-acetate (76 μM), androsterone-3-sulfate (2.4 μM) Drugs: atorvastatin, furosemide, lovastatin, simvastatin	(29--43)

Oatp3 (*Slc21a7*)	Rat	PGE_2 (35 μM), DHEA-S (162 μM), $E_2$17βG (39 μM), estrone-S (268 μM), LTC_4, BSP (8 μM), thyroid hormones Bile acids: cholate (9 μM), glycocholate (15 μM), glycodeoxycholate (4 μM), glycochenodeoxycholate (6 μM), glycoursodeoxycholate (5 μM), taurocholate (18-30 μM), taurodeoxycholate (6 μM), TCDCA (7 μM), TUDCA (7 μM) Drugs: BQ123 (417 μM), digoxin, DPDPE (137 μM), fexofenadine, ouabain (1.6 mM), rocuronium	6',7'-Dihydroxybergamottin, furanocoumarins in grape fruit juice	(41, 44--46)
OATP-A (*SLC21A3*)	Human	BSP (20 μM), DHEA-S (7 μM), $E_2$17βG, estrone-S (59 μM), Gd-B 20790, PGE_2, thyroid hormones, ochRatoxin A, APD-ajmalinium, N-methylquinine (26 μM), N-methylquinidine (5 μM) Bile acids: cholate (93 μM), glycocholate, taruocholate (60 μM), TCDCA, TUDCA (19 μM) Drugs: BQ123, chlorambucil, CRC220, deltorphin II (330 μM), DPDPE (202 μM), fexofenadine (6 μM), ouabain (5.5 mM), rocuronium	Leu-enkephalin Drugs: dexamethasone, erythromycin, indinavir, lovastatin, naloxone, naltrindole, nelfinavir, quinidine, ritonavir, saquinavir, verapamil	(37, 43, 47--51)
OATP-B (*SLC21A9*)	Human	Estrone-S, PGE_2 Drug: benzylpenicillin		(51, 52)

OATP-D (*SLC21A11*)	Human	estrone-S, PGE_2 Drug: benzylpenicillin		(52)
OATP-E (*SLC21A12*)	Human	Estrone-S, PGE_2, taurocholate (15 μM), thyroid hormones Drug: benzylpenicillin	BSP	(47, 52)
Oatp-E (*Slc21a12*)	Rat	Triiodo-L-thyronine		(47)
Oat-k1 (*Slc21a4*)	Rat	DHEA-S (9 μM), $E_2$17βG (35 μM), estrone-S (15 μM), folate, ochratoxin A (6 μM), taurocholate (31 μM), thyroid hormones Drugs: AZT (64 μM), MTX (1 μM)	Probenecid, PAH, BSP, aminopterin (0.5 μM), DIDS, folinic acid (8.2 μM), 5-methyl-tetrahydrofolic acid (1 μM) Drugs: flufenamate, furosemide, ibuprofen, indomethacin (1 mM), ketoprofen (2 mM), phenylbutzone, valproate	(53--57)
Oat-k2 (*Slc21a4*)	Rat	DHEA-S (8 μM), $E_2$17βG (45 μM), estrone-S (12 μM), PGE_2, folate, ochRatoxin A (17 μM), taurocholate (10 μM), thyroid hormones Drugs: AZT (76 μM), digoxin, MTX	probenecid, PAH, BSP, DIDS, 17β-estradiol, testosterone Drugs: benzylpenicillin, dexamethasone, digoxin, furosemide, indomethacin, levofloxacin, ouabain, prednisolone, valproate	(57, 58)

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PGT (*SLC21A2*)	Human	PGE_1, PGE_2, $PGF_{2\alpha}$, TxB_2, α-keto $PGF_{2\alpha}$, iloprost	Drug: furosemide	(59)
Pgt (*Slc21a2*)	Rat	PGE_1, PGE_2, $PGF_{2\alpha}$, TxB_2, α-keto $PGF_{2\alpha}$, iloprost	BCG, DIDS, ICG, MTSES Drug: furosemide	(60, 61)
MRP1 (*ABCC1*)	Human	LTC_4 (0.1 μM), AFB1-SG (0.2 μM), bilirubin-glucuronide, calcein, DNP-SG (3.6 μM), $E_2$17βG (1.5-10 μM), fluo-3 (12 μM), GSH, GSSG (93 μM), NEM-SG, PAH (372 μM), PGA_2-SG (1 μM) Drugs: *S*-(ethacrynic acid)-glutathione, etoposide-glucuronide, MTX (50 μM)	Probenecid, ochRatoxin A Drugs: benzbromarone, CSA (5 μM), *S*-(decyl)-glutathione (0.7μM), indomethacin, MK571 (0.6 μM), valspodar (27 μM), sulfinpyrazone	(62--65)
Mrp1 (*Abcc1*)	Mouse	LTC_4 (17 μM), calcein, APA-SG (17 μM) Drugs: daunorubicin (19 μM), vincristine (26 nM)	GSSG (25 μM) Drugs: arsenate (108 μM), genistein (23 μM), MK571 (1.9 μM)	(66)
MRP2 (*ABCC2*)	Human	LTC_4 (1 μM), bilirubin-glucuronide, DNP-SG (6.5, 70 μM), $E_2$17βG (7 μM), fluo-3, GSH, NEM-SG, ochRatoxin A, PAH (880 μM), PGA_1-SG Drugs: benzbromarone, MTX (1, 2.5 mM), *S*-(ethacrynic acid)-glucuronide, furosemide, indinavir, indomethacin, ritonavir, saquinavir, telmisaltan, vinblastine	Probenecid, BSP Drugs: glibenclamide, MK571, CSA (21 μM)	(62, 64, 67--72)
Mrp2 (*Abcc2*)	Rat	LTC_4 (1 μM), LTD_4 (1.5 μM), $E_2$17βG (7 μM), NAc-LTE_4 (5.2 μM), bilirubin-glucuronide, BSP (31 μM), DNP-SG (0.12, 0.18 μM), E3040-glucuronide, endothelin-1, fluo-3 (4 μM), folate, GSH, GSSG (111 μM), α-naphthyl-β-D-glucuronide, *p*-nitrophenyl-glucuronide (20 μM), 5-methyltetrahydrofolate (126 μM) Drugs: acetaminophen glucuronide, BQ123 (124, 98 μM), cefpiramide, ceftriaxone, indomethacin, irinotecan and SN-38, MTX (295 μM), pravastatin (220 μM), temocaprilat (93 μM)	Probenecid Drugs: CSA (10 μM), glibenclamide, MK571	(68, 69, 73--84)
MRP3 (*ABCC3*)	Human	LTC_4 (5 μM), DNP-SG (6 μM), $E_2$17βG (26-35 μM), folate (2 mM), folinic acid (1.7 mM), glycocholate (248 μM) Drug: MTX (776 μM)	Drugs: benzbromarone, MK571	(65, 85, 86)

Mrp3 (*Abcc3*)	Rat	LTC_4, $E_2$17βG (67 μM) Bile acids: glycocholate, taurochenodeoxycholate-3-sulfate, taurocholate (16 μM), taurolithocholate-3-sulfate (3 μM) Drugs: E3040-glucuronide, MTX	α-naphthyl-β-D-glucuronide, DNP-SG, estrone-sulfate, E3040-sulfate, 4-methylumbelliferone-glucuronide	(87, 88)
MRP4 (*ABCC4*)	Human	$E_2$17βG (30 μM), cAMP (44.5 μM), cGMP (9.7 μM) Drugs: adefovir, AZTMP, MTX, PMEG	Probenecid (2.3 mM), α-naphthyl-β-D-glucuronide, *p*-nitrophenyl-glucuronide, DNP-SG, NAc-DNP-Cys, dipyridamole, PGA_1, PGE_1 Drug: benzbromarone (150 μM), dipyridamole (2 μM), dilazep (20 μM), estramustine, MK571(10 μM), sildenafil (20 μM), sulfinpyrazone, trequinsin (30 μM), zaprinast (250 μM)	(89--93)
MRP5 (*ABCC5*)	Human	DNP-SG, cAMP (380 μM), cGMP (2 μM), BCECF, CMFDA, FDA, GSH Drugs: adefovir, 6-MP	Probenecid (150 μM), 8-bromo- cGMP, FDA Drugs: benzbromarone, dipyridamole (40 μM), estramustine, MK571 (40 μM), sildenafil (80 μM), sulfinpyrazone, trequinsin (30 μM), zaprinast (250 μM)	(92--96)
MRP6 (*ABCC6*)	Human	LTC_4 (600 nM), NEM-SG Drug: BQ123	Probenecid Drugs: benzbromarone, indomethacin	(97)
Mrp6 (*Abcc6*)	Rat	Drug: BQ123 (17 μM)		(80)
MDR1 (*ABCB1*)	Human	$E_2$17βG, calcein, fluo-3, rhodamine 123 Drugs: β-acetyldigoxin, actinomycin D, CPT-11, CSA, daunorubicin, digitoxin, digoxin, doxorubicin, epirubicin, etoposide, indinavir, α-methyldigoxin, mitomycinC, mitoxantrone, nelfinavir, norverapamil, ritonavir, saquinavir, taxol, topotecan, verapamil, vinblastine, vincristine	Progesterone Drugs: amiodarone, amitriptyline, chlorpromazine, diltiazem, dipyridamole, elacridar, fluphenazine, fucidin, laniquidar, lovastatin, mefloquine, phenothiazines, pimozide, propafenone, propranolol, quinine, quinidine, reserpine, simvastatin, spironolactone, staurosporin, tamoxifen, tariquidar, trifluoperazine, triflupromazine, valspodar, zosuquidar	(98--108)
mdr1a /mdr1b (*Abcb1*)	Rat/mouse	Rhodamine 123 Drugs: CSA, dexamethasone, digoxin, doxorubicin, fexofenadine, indinavir, ivermectin, nelfinavir, saquinavir, verapamil, vinblastine		(37, 107, 109--115)

OCT1 (*SLC22A1*)	Human	MPP^+ (14.6 μM), TEA (229 μM), TBA Drugs: acylclovir (151 μM), ganciclovir (516 μM)	Choline, creatinine, corticosterone (7 μM), decynium22 (1, 2.7, 4.4 μM), dopamine, β-estradiol (6 μM), nicotine, NMN (7.7 mM), progesterone (3 μM) Drugs: acebutolol (96 μM), amantadine, cimetidine (166 μM), clonidine (0.55 μM), desipramine (5.3 μM), disopyramide, indinavir (62 μM), midazolam (3.7 μM), nelfinavir (22 μM), pancuronium, phenoxybenzamine (3 μM), procainamide (73.9, 107 μM), prazosin (2 μM), quinine (23 μM), quinidine (17.5, 23 μM), ritonavir (5.2 μM), saquinavir (8.3 μM), vecuronium (237 μM), verapamil (2.9 μM)	(7, 116--120)
Oct1 (*Slc22a1*)	Rat	TEA (36, 38, 95 μM), MPP^+ (10, 13 μM), NMN (340 μM), TBA, choline (620 μM), dopamine (1.1 mM, 51 μM), adrenaline, noradrenaline (2.8 mM), 5-hydroxyltryptamine, serotonin (650 μM) Drugs: ASP, AZT, cimetidine, cladribine, cytarabine, D-tubocurarine	Corticosterone (10, 72 μM), cyanine863 (0.13, 0.67 μM), decynium22 (0.36, 0.5, 22 μM), disprocynium24 (0.11 μM), guanidine (0.72, 4.2 mM), histamine (1.4 mM), nicotine (64.3 μM), *o*-methylisoprenaline (25, 43 μM) Drugs: clonidine (1.4 μM), desipramine (2.8 μM), mepiperphenidol (5.2 μM), procainamide (13, 44.4 μM), reserpine, quinine (0.93, 4.3 μM), quinidine (6, 14.6 μM)	(121--131)
OCT2 (*SLC22A2*)	Human	TEA (76 μM), MPP^+ (16, 19 μM), NMN (300 μM), agmatine, choline (210 μM), dopamine (0.39 mM), histamine (1.3 mM), norepinephrine (1.9 mM), serotonin (80 μM) Drugs: amantadine (27 μM), memantine (34 μM)	Cyanine863 (0.21 μM), decynium22 (0.1, 1 μM), corticosterone (34 μM), *o*-methylisoprenaline (570 μM), progesterone (27 μM), SKF550 (0.1 μM) Drugs: desipramine (16 μM), mepiperphenidol (1.8 μM), phenoxybenzamine (5 μM), procainamide (50 μM), quinine (3.4 μM)	(120, 124, 132, 133)
Oct2 (*Slc22a2*)	Rat	TEA (34, 45 μM), MPP^+ (17 μM), adrenaline (1.9 mM), agmatine (0.95 mM), choline (600 μM), creatinine, dopamine (2.1 mM), guanidine (730 μM), histamine (540 μM), hydroxytryptamine (3.6 mM), noradrenaline (4.4 mM), serotonin (3.6 mM) Drugs: amantadine (27 μM), cimetidine (21 μM), memantine (34 μM)	Corticosterone (4.2, 0.5 μM), cyanine 863 (0.81 μM), decynium22 (14 μM), dexoycorticosterone (1.9 μM), disprocynium24 (0.01 μM), dopamine (2.3 mM), β-estradiol (84.8 μM), guanidine (714 μM), nicotine (50.5 μM), NMN (0.4, 1.6 mM), norepinephrine (11 mM), progesterone (1.6 μM) Drugs: cimetidine (9.4, 198, 373 μM), cisplatin (925 μM), procainamide (257 μM), quinine, quinidine (19.1 μM)	(121, 122, 128, 131--137)

OCT3 (*SLC22A3*)	Human	MPP^+ (47 μM), adrenaline, guanidine (180 μM), histamine (180 μM), noradrenaline (510 μM) Drugs: cimetidine, tyramine	Corticosterone (0.12, 0.29 μM), decynium22 (0.1 μM), disprocynium24 (0.01 μM), β-estradiol (3 μM), MPTP, *o*-methylisoprenaline (4 μM), progesterone (4 μM), SKF550 (0.05 μM) Drugs: clonidine (373 μM), desipramine (14 μM), imipramine (42 μM), phenoxybenzamine (6 μM), prazosin (13 μM), procainamide (738 μM)	(120, 135, 136, 138)
Oct3 (*Slc22a3*)	Rat	MPP^+ (91 μM), TEA (2.5 mM), guanidine	Choline, corticosterone (4.9 μM), dexoycorticosterone (8.4 μM), DMA, dopamine (620 μM), β-estradiol (1.1 μM), nicotine, NMN, norepinephrine (434 μM), progesterone (10.5 μM), serotonin (970 μM), testosterone Drugs: amphetamine (42 μM), cimetidine, clonidine, desipramine (68 μM), methamphetamine (247 μM)	(136, 139)
OCTN1 (*SLC22A4*)	Human	TEA (436 μM), MPP^+, L-carnitine, acetyl-L-carnitine (8.5 μM) Drugs: pyrilamine, quinidine, verapamil	D-carnitine, nicotine Drugs: cephaloridine, cimetidine, procainamide, quinine	(140, 141)
Octn1 (*Slc22a4*)	Rat	TEA, MPP^+	DMA (180 μM), nicotine Drugs: cimetidine (1.5 mM), desipramine (80 μM), imipramine, procainamide (860 μM), verapamil	(142)
OCTN2 (*SLC22A5*)	Human	TEA, MPP^+, L-carnitine (4-14 μM), D-carnitine (11, 98 μM), acetyl-l-carnitine (8.5 μM), betaine, choline, cysteine, lysine, methionine Drugs: pyrilamine, quinidine, valproate, verapamil	aldosterone, corticosterone, glycinebetaine, MPTP, nicotine Drugs: cefepime (1.7 mM), cefoselis (6.4 mM), cefluprenam, cefsulodin, ceftazidime, cephaloridine (230 μM), cimetidine, clonidine, desipramine, emetine (4.2 μM), procainamide, pyrilamine, quinine	(143--148)
Octn2 (*Slc22a5*)	Rat	L-carnitine (15 μM), TEA (63 μM)	DMA, MPTP, nicotine Drugs: cefoselis (6.4 mM), cefepime (2.1 mM), cefluprenam, cephaloridine (790 μM), cimetidine, clonidine, despiramine, procainamide	(144, 147)

PEPT1 (*SLC15A1*)	Human	Glycylsarcosine (1 mM), ALA (280 μM), D-Phe-L-Gln, L-dopa-L-Phe, formyl-Met- Leu-Phe Drugs: cefadroxil, cefixime, ceftibuten (300 μM), cephalexin, cyclacillin (500 μM), Val-AZT, valacyclovir (5.9 mM)	Valine, pentaglycine Drugs: amoxicillin (13 mM), ampicillin (50 mM), bestatin (500 μM), captopril (9 mM), cefdinir (12 mM), ceftibuten (0.76, 0.6 mM), cephradine (9 mM), enalapril (4 mM)	(149--158)
Pept1 (*Slc15a1*)	Rat	Glycylsarcosine (1.1 mM) Drugs: bestatin, ceftibuten (1.5 mM), cephradine (8.2 mM)	Drugs: amoxicillin (13 mM), ampicillin (47.8 mM), cyclacillin (168 μM), cephalexin (4.5 mM), cefadroxil (2.2 mM), cefdinir (11.9 mM), cefixime (6.9 mM), glibenclamide (25 μM), enalapril (4 mM), captopril (9 mM), tolbutamide, chlorpropamide	(159--161)
PEPT2 (*SLC15A2*)	Human	Glycylsarcosine (110 μM), ALA (230 μM) Drugs: bestatin, cephalexin, valacyclovir	Drugs: ampicillin (670 μM, 1.3 mM), amoxicillin (180 μM), cefadroxil (3, 66 μM), cefixime, cephradine (47 μM), cephalothin (7.5 mM), cefdinir, ceftibuten (0.14 mM), cyclacillin (610 μM)	(149, 152, 155, 156)
Pept2 (*Slc15a2*)	Rat	Glycylsarcosine (0.11 mM) Drug: valacylclovir	Drugs: ampicillin (669 μM), amoxicillin (179 μM), bestatin (20 μM), cefadroxil (3 μM), cefdinir (20 mM), cefixime (11.9 mM), ceftibuten (1.3 mM), cephalexin (49 μM), cephradine (47 μM), chlorpropamide, cyclacillin (27 μM), glibenclamide (7.8 μM), tolbutamide	(152, 159, 161)

CNT1 (*SLC28A1*)	Human	Adenosine (15–26mM), thymidine (13mM), uridine (26–45mM) Drugs: AZT (500mM), zalcitabine (500mM)		(162)
Cnt1 (*Slc28a1*)	Rat	Adenosine, thymidine, uridine (184 μM) Drug: AZT (0.55 mM)	Drugs: cytarabine (1.88 mM), floxidine, gemcitabine, idoxuridine, zalcitabine	(163, 164)
CNT2 (*SLC28A2*)	Human	Adenosine (6–8 mM), uridine (20–80 mM), inosine (5–20 mM), thymidine (13 mM) Drugs: cladribine, didanosine		(165)
Cnt2 (*Slc28a2*)	Rat	Adenosine (23 μM), guanosine, inosine, thymidine (130 μM), uridine Drug: didanosine (29 μM)		(166)
NPT1 (*SLC17A1*)	Human	PAH (2.7 mM), uRate, $E_2$17βG Drugs: benzylpenicillin (0.5 mM), faropenem (1 mM), indomethacin	Probenecid, DIDS Drugs: ampicillin, furosemide, salicylate	(167)
Npt1 (*Slc17a1*)	Mouse	Phosphate, mevalonate Drugs: benzylpenicillin (460 μM), faropenem, foscarnet	Probenecid Drugs: ampicillin, apalcillin, cefixime, cefoperazone, cefpiramide, ceftizoxime, cephalexin, cephalothin, cephradine, cephaloridine, cloxacillin, cyclacillin, dicloxacillin, nafcillin	(168)

[a] The compounds are regarded as inhibitors if they have been only shown to inhibit the transport of the model compound.

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Abbrebiations: AFB1-SG, S-(aflatoxin B1)-glutathione; α-KG, α-ketoglutaRate; ALA, delta-aminolevulinic acid; APA-SG; azidophenacyl-S-glutathione; APD-ajmalinium, *N*-(4,4-azo-*n*-pentyl)-21-deoxyajmalinium; ASP, 4-(4-(dimethylamino)styryl)-N-methylpyridinium iodide; AZT, azidothymidine; AZTMP, azidothymidine monophosphate; BCECF, 20,70-bis-(2-carboxyethyl)-5 (and-6)-carboxyfluorescein acetoxymethyl ester; BCG, bromocresol green; BQ123, cyclo [Trp-Asp-Pro-Val-Leu]; BSP, bromosulfophthalein; CMFDA, 5-chloromethylfluorescein; CSA, cyclosporine A; DHEA-S, dehydroepiandrosterone-sulfate; DIDS, 4,40 -diisothiocyanostilbene-2,20-disulfonic acid; DMA, 5-(N,N-dimethyl)amiloride; DNP-SG, S-(dinitrophenyl)-glutathione; DPDPE, [D-penicillamine]enkephalin; $E_2$17βG, estradiol-17β-D-glucuronide; E3040, 6-hydroxy-5,7-dimethyl-2-methylamino-4-(3-pyridylmethyl) benzothiazole; estrone-S, estrone sulfate; FDA, fluorescein-diacetate; GSH, reduced glutathione; GSSG, oxidized glutathione; ICG, Indocyanin green; KW-3902, 8-(noradamantan-3-yl)-1,3-dipropylxanthine; LTC_4 LTD_4, leukotriene C_4 D_4 ; MK571, 3-[[3-[2-(7-chloroquinolin-2-yl)vinyl]phenyl]-(2-dimethylcarbamoylethylsulfanyl) methylsulfanyl] propionic acid; 6-MP, 6-mercaptopurine; MPP^+, 1-methyl-4-phenylpyridinium; MPTP, 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine; MTX, methotrexate; MTSES, Na(2-sulfonatoethyl)methanethiosulfonate; NEM-SG, N-ethylmaleimide glutathione; NMN, N^1-methylnicotinamide; PAH, p-aminohippuRate; PGA_1-SG, PGA_2-SG, S-(prostaglandin A_1 or A_2)-glutathione; PGE_1, PGE_2, $PGF_{2\alpha}$,, prostaglandin E1, E2, F2α ;PMEG/PMEDAP, 9-(2-phosphonylmethoxyethyl)-guanine/-diaminopurine; SKF550, ((9-fluorenyl)-N-methyl-β-chloroethylamine); TBA, tetrabutylamine; TCDCA, taurochenodeoxycholic acid; TEA, tetraethylammonium; TUDCA , tauroursodeoxycholic acid; TxB_2, thromboxane B2.

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