

Gene ID	Official Gene	Alias	Entrez Gene ID	Gene Description	Gene Ontology	Panther Protein Family
ABCB1	ABCB1	ABC20; CD243; CLCS; GP170; MDR1; P-gp; PGY1	5243	ATP-binding cassette, sub-family B (MDR/TAP), member 1	GO:42493; GO:42626; GO:166; GO:16021; GO:16887; GO:5524; GO:5624; GO:6810	ATP-BINDING CASSETTE TRANSPORTER
ABCB10	ABCB10	EST20237; M-ABC2; MTABC2	23456	ATP-binding cassette, sub-family B (MDR/TAP), member 10	GO:5739; GO:6810; GO:42626; GO:19866; GO:166; GO:16021; GO:16887; GO:43190; GO:5524	ATP-BINDING CASSETTE TRANSPORTER
ABCB11	ABCB11	ABC16; BSEP; PFIC-2; PFIC2; PGY4; SPGP	8647	ATP-binding cassette, sub-family B (MDR/TAP), member 11	GO:5524; GO:5624; GO:5887; GO:6810; GO:15432; GO:166; GO:16887; GO:8554	ATP-BINDING CASSETTE TRANSPORTER
ABCB4	ABCB4	ABC21; MDR2/3; MDR3; PFIC-3; PGY3	5244	ATP-binding cassette, sub-family B (MDR/TAP), member 4	GO:9410; GO:6629; GO:6810; GO:42493; GO:42626; GO:166; GO:16021; GO:16887; GO:5524; GO:5624; GO:5887	ATP-BINDING CASSETTE TRANSPORTER
ABCB5	ABCB5	ABCB5beta; EST422562	340273	ATP-binding cassette, sub-family B (MDR/TAP), member 5	GO:5524; GO:6810; GO:42626; GO:166; GO:16021; GO:16887	ATP-BINDING CASSETTE TRANSPORTER
ABCB6	ABCB6	ABC; ABC14; EST45597; MTABC3; PRP; umat	10058	ATP-binding cassette, sub-family B (MDR/TAP), member 6	GO:5524; GO:5739; GO:6810; GO:6879; GO:42626; GO:19866; GO:166; GO:16021; GO:16887; GO:43190	ATP-BINDING CASSETTE TRANSPORTER
ABCB7	ABCB7	ABC7; ASAT; Atm1p; EST140535	22	ATP-binding cassette, sub-family B (MDR/TAP), member 7	GO:5524; GO:5739; GO:5743; GO:15232; GO:6810; GO:42626; GO:166; GO:16021; GO:16887	ATP-BINDING CASSETTE TRANSPORTER
ABCB8	ABCB8	EST328128; M-ABC1; MABC1	11194	ATP-binding cassette, sub-family B (MDR/TAP), member 8	GO:42626; GO:19866; GO:166; GO:16021; GO:16887; GO:43190; GO:5524; GO:5624; GO:5740; GO:6810	ATP-BINDING CASSETTE TRANSPORTER
ABCB9	ABCB9	EST122234; KIAA1520; TAPL	23457	ATP-binding cassette, sub-family B (MDR/TAP), member 9	GO:16021; GO:16887; GO:43190; GO:5524; GO:5764; GO:15198; GO:6810; GO:6857; GO:42626; GO:166	ATP-BINDING CASSETTE TRANSPORTER
ABCC1	ABCC1	ABC29; ABCC; GS-X; MRP; MRP1	4363	ATP-binding cassette, sub-family C (CFTR/MRP), member 1	GO:6468; GO:6810; GO:42493; GO:42626; GO:166; GO:16021; GO:16887; GO:4672; GO:5524; GO:5624; GO:5887	ATP-BINDING CASSETTE TRANSPORTER
ABCC10	ABCC10	EST182763; MRP7; SIMRP7	89845	ATP-binding cassette, sub-family C (CFTR/MRP), member 10	GO:42626; GO:166; GO:16021; GO:16887; GO:5524; GO:6810	ATP-BINDING CASSETTE TRANSPORTER
ABCC11	ABCC11	MRP8	85320	ATP-binding cassette, sub-family C (CFTR/MRP), member 11	GO:5524; GO:6810; GO:42626; GO:166; GO:16021; GO:16887	ATP-BINDING CASSETTE TRANSPORTER
ABCC12	ABCC12	MRP9	94160	ATP-binding cassette, sub-family C (CFTR/MRP), member 12	GO:5524; GO:6810; GO:42626; GO:166; GO:16021; GO:16887	ATP-BINDING CASSETTE TRANSPORTER
ABCC13	ABCC13	C21orf73; PRED6	150000	ATP-binding cassette, sub-family C (CFTR/MRP), member 13	GO:5524; GO:5634; GO:6810; GO:42626; GO:16021	ATP-BINDING CASSETTE TRANSPORTER
ABCC2	ABCC2	ABC30; CMOAT; DJS; MRP2; cMRP	1244	ATP-binding cassette, sub-family C (CFTR/MRP), member 2	GO:5524; GO:5887; GO:6810; GO:42626; GO:166; GO:16887; GO:8514	ATP-BINDING CASSETTE TRANSPORTER
ABCC3	ABCC3	ABC31; EST90757; MLP2; MOAT-D; MRP3; cMOAT2	8714	ATP-binding cassette, sub-family C (CFTR/MRP), member 3	GO:42626; GO:16887; GO:8514; GO:5524; GO:5624; GO:5887; GO:6810	ATP-BINDING CASSETTE TRANSPORTER
ABCC4	ABCC4	EST170205; MOAT-B; MOATB; MRP4	10257	ATP-binding cassette, sub-family C (CFTR/MRP), member 4	GO:6811; GO:42626; GO:16021; GO:16404; GO:16887; GO:5254; GO:5524	ATP-BINDING CASSETTE TRANSPORTER
ABCC5	ABCC5	ABC33; EST277145; MOAT-C; MOATC; MRP5; SMRP; pABC11	10057	ATP-binding cassette, sub-family C (CFTR/MRP), member 5	GO:15239; GO:6810; GO:42626; GO:166; GO:16021; GO:16887; GO:8514; GO:5524; GO:5624; GO:5887	ATP-BINDING CASSETTE TRANSPORTER
ABCC6	ABCC6	ABC34; ARA; EST349056; MLP1; MOATE; MRP6; PXE	368	ATP-binding cassette, sub-family C (CFTR/MRP), member 6	GO:5524; GO:5886; GO:6810; GO:42493; GO:42626; GO:166; GO:16021; GO:7601; GO:16887	ATP-BINDING CASSETTE TRANSPORTER
ABCC8	ABCC8	ABC36; HI; HRINS; MRP8; PHHI; SUR; SUR1	6833	ATP-binding cassette, sub-family C (CFTR/MRP), member 8	GO:5524; GO:5975; GO:15079; GO:6810; GO:6813; GO:42626; GO:166; GO:16021; GO:16887; GO:4872; GO:8281	ATP-BINDING CASSETTE TRANSPORTER
ABCC9	ABCC9	ABC37; SUR2	10060	ATP-binding cassette, sub-family C (CFTR/MRP), member 9	GO:5524; GO:6810; GO:6813; GO:42626; GO:166; GO:16020; GO:16021; GO:16887; GO:4872; GO:8281	ATP-BINDING CASSETTE TRANSPORTER
ABCG2	ABCG2	ABC15; ABCP; BCRP; BCRP1; BMDP; EST157481; MRX; MXR; MXR1	9429	ATP-binding cassette, sub-family G (WHITE), member 2	GO:16021; GO:16887; GO:8559; GO:5524; GO:6810; GO:42493; GO:166	ATP-BINDING CASSETTE TRANSPORTER

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ADH1A	ADH1A	ADH1	124	alcohol dehydrogenase 1A (class I), alpha polypeptide	GO:16491; GO:4024; GO:8270; GO:5737; GO:6066	ALCOHOL DEHYDROGENASE-RELATED
ADH1B	ADH1B	ADH2	125	alcohol dehydrogenase 1B (class I), beta polypeptide	GO:5489; GO:6069; GO:16491; GO:4024; GO:8270	ALCOHOL DEHYDROGENASE-RELATED
ADH1C	ADH1C	ADH3	126	alcohol dehydrogenase 1C (class I), gamma polypeptide	GO:16491; GO:4024; GO:8270; GO:5737; GO:6066	ALCOHOL DEHYDROGENASE-RELATED
ADH4	ADH4	ADH-2	127	alcohol dehydrogenase 4 (class II), pi polypeptide	GO:6066; GO:6069; GO:6081; GO:16491; GO:4024; GO:4174; GO:8270	ALCOHOL DEHYDROGENASE-RELATED
ADH5	ADH5	ADH-3; ADHX; FDH	128	alcohol dehydrogenase 5 (class III), chi polypeptide	GO:4024; GO:4327; GO:8270; GO:5489; GO:5504; GO:6069; GO:16491	ALCOHOL DEHYDROGENASE-RELATED
ADH6	ADH6	ADH-5	130	alcohol dehydrogenase 6 (class V)	GO:8270; GO:5489; GO:6069; GO:16491; GO:4024	ALCOHOL DEHYDROGENASE-RELATED
ADH7	ADH7	ADH-4	131	alcohol dehydrogenase 7 (class IV), mu or sigma polypeptide	GO:16491; GO:4024; GO:4745; GO:8270; GO:5489; GO:6069; GO:6355	ALCOHOL DEHYDROGENASE-RELATED
ADH8	ADHFE1	ADH8; FLJ32430; HMFT2263	137872	alcohol dehydrogenase, iron containing, 1		ALCOHOL DEHYDROGENASE-RELATED
AHR	AHR		196	aryl hydrocarbon receptor	GO:4879; GO:5634; GO:9410; GO:6355; GO:6366; GO:6915; GO:6950; GO:3700; GO:7049; GO:7165	ARYL HYDROCARBON RECEPTOR TRANSCRIPTION FACTOR
ALDH1A1	ALDH1A1	ALDC; ALDH-E1; ALDH1; ALDH11; MGC2318; PUMB1; RALDH1	216	aldehyde dehydrogenase 1 family, member A1	GO:1758; GO:5489; GO:5497; GO:5829; GO:6081; GO:16491; GO:4029; GO:8152	ALDEHYDE DEHYDROGENASE-RELATED
ALDH1A2	ALDH1A2	MGC26444; RALDH(II); RALDH2; RALDH2-T	8854	aldehyde dehydrogenase 1 family, member A2	GO:8152; GO:1758; GO:5489; GO:6776; GO:16491; GO:4028	ALDEHYDE DEHYDROGENASE-RELATED
ALDH1A3	ALDH1A3	ALDH1A6; ALDH6; RALDH3	220	aldehyde dehydrogenase 1 family, member A3	GO:6066; GO:6629; GO:16491; GO:4030; GO:8152	ALDEHYDE DEHYDROGENASE-RELATED
ALDH1B1	ALDH1B1	ALDH5; ALDHX; MGC2230	219	aldehyde dehydrogenase 1 family, member B1	GO:16491; GO:4029; GO:8152; GO:5739; GO:5975	ALDEHYDE DEHYDROGENASE-RELATED
ALDH2	ALDH2	ALDH-E2; ALDHI; ALDM; MGC1806	217	aldehyde dehydrogenase 2 family (mitochondrial)	GO:16491; GO:4029; GO:4030; GO:8152; GO:5489; GO:5739; GO:5975; GO:6066	ALDEHYDE DEHYDROGENASE-RELATED
ALDH3A1	ALDH3A1	ALDH3; ALDHIII; MGC10406	218	aldehyde dehydrogenase 3 family, memberA1	GO:5489; GO:5829; GO:5975; GO:6081; GO:16491; GO:4030; GO:8152	ALDEHYDE DEHYDROGENASE-RELATED
ALDH3A2	ALDH3A2	ALDH10; FALDH; SLS	224	aldehyde dehydrogenase 3 family, member A2	GO:7417; GO:7422; GO:16021; GO:16491; GO:4029; GO:8152; GO:8544; GO:5783; GO:5792; GO:6629	ALDEHYDE DEHYDROGENASE-RELATED
ALDH3B1	ALDH3B1	ALDH4; ALDH7	221	aldehyde dehydrogenase 3 family, member B1	GO:4030; GO:8152; GO:6066; GO:6629; GO:16491	ALDEHYDE DEHYDROGENASE-RELATED
ALDH3B2	ALDH3B2	ALDH8	222	aldehyde dehydrogenase 3 family, member B2	GO:6066; GO:6629; GO:16491; GO:4030; GO:8152	ALDEHYDE DEHYDROGENASE-RELATED
ALDH4A1	ALDH4A1	ALDH4; P5CD; P5CDh; P5CDhL; P5CDhS	8659	aldehyde dehydrogenase 4 family, member A1	GO:8152; GO:5489; GO:5759; GO:6561; GO:6562; GO:3842; GO:16491; GO:4029	ALDEHYDE DEHYDROGENASE-RELATED
ALDH5A1	ALDH5A1	SSADH; SSDH	7915	aldehyde dehydrogenase 5 family, member A1 (succinate-semialdehyde dehydrogenase)	GO:42417; GO:16491; GO:4028; GO:4777; GO:8152; GO:5489; GO:5739; GO:9448; GO:9450	ALDEHYDE DEHYDROGENASE-RELATED

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ALDH6A1	ALDH6A1	MGC40271; MMSADHA; MMSDH	4329	aldehyde dehydrogenase 6 family, member A1	GO:18478; GO:6220; GO:6573; GO:16491; GO:4491; GO:8152; GO:5739	ALDEHYDE DEHYDROGENASE-RELATED
ALDH7A1	ALDH7A1	ATQ1	501	aldehyde dehydrogenase 7 family, member A1	GO:6081; GO:7605; GO:16491; GO:4029; GO:8152; GO:8372	ALDEHYDE DEHYDROGENASE-RELATED
ALDH8A1	ALDH8A1	ALDH12; DJ352A20.2	64577	aldehyde dehydrogenase 8 family, member A1	GO:8152; GO:1758; GO:5622; GO:42573; GO:42574; GO:16491	ALDEHYDE DEHYDROGENASE-RELATED
ALDH9A1	ALDH9A1	ALDH4; ALDH7; ALDH9; E3; TMABADH	223	aldehyde dehydrogenase 9 family, member A1	GO:8152; GO:47105; GO:5489; GO:6081; GO:19145; GO:16491; GO:4029	ALDEHYDE DEHYDROGENASE-RELATED
AOX1	AOX1	AO; AOH1	316	aldehyde oxidase 1	GO:5489; GO:6118; GO:6800; GO:6954; GO:30151; GO:16491; GO:4031; GO:4854	XANTHINE DEHYDROGENASE-RELATED
ARS2	ARS2	ASR2	51593	arsenate resistance protein ARS2	GO:5554; GO:46685; GO:8372	ARSENITE-RESISTANCE PROTEIN 2
ASNA1	ASNA1	ARSA-I; ARSA1; MGC3821	439	arsA arsenite transporter, ATP-binding, homolog 1 (bacterial)	GO:46685; GO:16787; GO:5215; GO:5524; GO:5625; GO:5730; GO:5737; GO:15105; GO:6810; GO:6820; GO:15446; GO:16020	ARSENICAL PUMP-DRIVING ATPASE-RELATED
ATP7A	ATP7A	MK; MNK; OHS	538	ATPase, Cu++ transporting, alpha polypeptide (Menkes syndrome)	GO:5507; GO:5524; GO:5794; GO:5887; GO:15097; GO:6825; GO:15694; GO:30001; GO:287; GO:16020; GO:16787; GO:46872; GO:46873; GO:16820; GO:4008; GO:8152	CATION TRANSPORTING ATPASE
ATP7B	ATP7B	PWD; WC1; WND	540	ATPase, Cu++ transporting, beta polypeptide (Wilson disease)	GO:6825; GO:30001; GO:287; GO:16021; GO:16787; GO:46873; GO:16820; GO:4008; GO:8152; GO:5507; GO:5524; GO:5794; GO:5887	CATION TRANSPORTING ATPASE
CDA	CDA	CDD; hscd	978	cytidine deaminase	GO:6139; GO:46087; GO:16787; GO:4126; GO:8270	CYTIDINE DEAMINASE
CES1	CES1	CEH; CES2; HMSE; HMSE1; SES1	1066	carboxylesterase 1 (monocyte/macrophage serine esterase 1)	GO:16787; GO:4759; GO:8152; GO:5615; GO:5783; GO:9636	ESTERASE-RELATED
CES2	CES2	CE-2; iCE	8824	carboxylesterase 2 (intestine, liver)		ESTERASE-RELATED
CESR	CES4	CESR; PCE-3	51716	carboxylesterase 4-like	GO:4759; GO:5783; GO:9653; GO:6805; GO:16787	ESTERASE-RELATED
CHST1	CHST1	C6ST; KS6ST; KSGal6ST	8534	carbohydrate (keratan sulfate Gal-6) sulfotransferase 1	GO:8146; GO:5976; GO:16021; GO:16740	CARBOHYDRATE SULFOTRANSFERASE
CHST10	CHST10	HNK-1ST; HNK1ST; MGC17148	9486	carbohydrate sulfotransferase 10	GO:7155; GO:16740; GO:8146; GO:5624; GO:5794	SULFOTRANSFERASE (HNK-1, CHONDROITIN, AND GALNAC)
CHST11	CHST11	C4ST; C4ST-1; C4ST1; HSA269537	50515	carbohydrate (chondroitin 4) sulfotransferase 11	GO:16740	SULFOTRANSFERASE (HNK-1, CHONDROITIN, AND GALNAC); ATP SYNTHASE 9
CHST13	CHST13	C4ST3	166012	carbohydrate (chondroitin 4) sulfotransferase 13	GO:16740	SULFOTRANSFERASE (HNK-1, CHONDROITIN, AND GALNAC)
CHST2	CHST2	C6ST	9435	carbohydrate (N-acetylglucosamine-6-O) sulfotransferase 2	GO:16021; GO:16740; GO:8146	CARBOHYDRATE SULFOTRANSFERASE
CHST3	CHST3	C6ST; C6ST1	9469	carbohydrate (chondroitin 6) sulfotransferase 3	GO:5794; GO:16021; GO:16740; GO:8459	CARBOHYDRATE SULFOTRANSFERASE
CHST4	CHST4	LSST	10164	carbohydrate (N-acetylglucosamine 6-O) sulfotransferase 4	GO:6477; GO:6928; GO:6955; GO:7155; GO:7267; GO:16021; GO:16740; GO:8146; GO:5529	CARBOHYDRATE SULFOTRANSFERASE

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CHST5	CHST5	ALYE870; FLJ22167; PRO1886	23563	carbohydrate (N-acetylglucosamine 6-O) sulfotransferase 5	GO:16021; GO:16740; GO:8146	
CHST6	CHST6	MCDC1	4166	carbohydrate (N-acetylglucosamine 6-O) sulfotransferase 6	GO:5794; GO:6044; GO:16021; GO:16740; GO:1517	CARBOHYDRATE SULFOTRANSFERASE
CHST7	CHST7	C6ST-2	56548	carbohydrate (N-acetylglucosamine 6-O) sulfotransferase 7	GO:16021; GO:16740; GO:8459; GO:5976	CARBOHYDRATE SULFOTRANSFERASE
CHST8	CHST8		64377	carbohydrate (N-acetylgalactosamine 4-O) sulfotransferase 8	GO:42446; GO:30166; GO:7417; GO:16021; GO:16740; GO:1537	SULFOTRANSFERASE (HNK-1, CHONDROITIN, AND GALNAC)
CHST9	CHST9	GALNAC4ST-2	83539	carbohydrate (N-acetylgalactosamine 4-O) sulfotransferase 9	GO:42446; GO:30166; GO:30203; GO:7417; GO:16021; GO:16740; GO:1537	SULFOTRANSFERASE (HNK-1, CHONDROITIN, AND GALNAC)
COMT	COMT		1312	catechol-O-methyltransferase	GO:5625; GO:5792; GO:6584; GO:42135; GO:287; GO:16021; GO:16206; GO:16740; GO:8171; GO:8757	O-METHYLTRANSFERASE
CYP11A1	CYP11A1	CYP11A; P450SCC	1583	cytochrome P450, family 11, subfamily A, polypeptide 1	GO:4497; GO:8203; GO:8386; GO:5489; GO:5739; GO:6118; GO:6700; GO:6702; GO:19825; GO:16020	CYTOCHROME P450
CYP11B1	CYP11B1	CPN1; CYP11B; FHI; P450C11	1584	cytochrome P450, family 11, subfamily B, polypeptide 1	GO:6118; GO:6700; GO:16020; GO:4497; GO:4507; GO:5739	CYTOCHROME P450
CYP11B2	CYP11B2	ALDOS; CPN2; CYP11B; CYP11BL; P-450C18; P450C18; P450aldo	1585	cytochrome P450, family 11, subfamily B, polypeptide 2	GO:4497; GO:4507; GO:8202; GO:8217; GO:47783; GO:5739; GO:6118; GO:6700; GO:6704; GO:19825; GO:16020	CYTOCHROME P450
CYP17A1	CYP17A1	CPT7; CYP17; P450C17; S17AH	1586	cytochrome P450, family 17, subfamily A, polypeptide 1	GO:6700; GO:19825; GO:7548; GO:16020; GO:4497; GO:4508; GO:5783; GO:5792; GO:6118	CYTOCHROME P450
CYP19A1	CYP19A1	ARO; ARO1; CPV1; CYAR; CYP19; P-450AROM	1588	cytochrome P450, family 19, subfamily A, polypeptide 1	GO:19825; GO:16020; GO:4497; GO:8402; GO:5489; GO:5624; GO:5792; GO:50381; GO:6118; GO:6694	CYTOCHROME P450
CYP1A1	CYP1A1	AHH; AHRR; CP11; CYP1; P1-450; P450-C; P450DX	1543	cytochrome P450, family 1, subfamily A, polypeptide 1	GO:50381; GO:6118; GO:19825; GO:16020; GO:5783; GO:5792	CYTOCHROME P450
CYP1A2	CYP1A2	CP12; P3-450; P450(PA)	1544	cytochrome P450, family 1, subfamily A, polypeptide 2	GO:5489; GO:5783; GO:5792; GO:50381; GO:6118; GO:19825; GO:16020	CYTOCHROME P450
CYP1B1	CYP1B1	CP1B; GLC3A	1545	cytochrome P450, family 1, subfamily B, polypeptide 1	GO:19825; GO:16020; GO:7601; GO:4497; GO:1747; GO:5489; GO:5783; GO:5792; GO:50381; GO:6118	CYTOCHROME P450
CYP20A1	CYP20A1	CYP-M; MGC22229	57404	cytochrome P450, family 20, subfamily A, polypeptide 1	GO:4497; GO:6118	CYTOCHROME P450
CYP21	CYP21A2	CA21H; CAH1; CPS1; CYP21; CYP21B; P450c21B	1589	cytochrome P450, family 21, subfamily A, polypeptide 2	GO:5496; GO:5783; GO:5792; GO:6118; GO:6700; GO:19825; GO:16020; GO:4497; GO:4509	CYTOCHROME P450
CYP21A2	CYP21A2	CA21H; CAH1; CPS1; CYP21; CYP21B; P450c21B	1589	cytochrome P450, family 21, subfamily A, polypeptide 2	GO:5496; GO:5783; GO:5792; GO:6118; GO:6700; GO:19825; GO:16020; GO:4497; GO:4509	CYTOCHROME P450
CYP24A1	CYP24A1	CP24; CYP24; P450-CC24	1591	cytochrome P450, family 24, subfamily A, polypeptide 1	GO:6118; GO:19825; GO:4497; GO:5489; GO:5739	CYTOCHROME P450
CYP26A1	CYP26A1	CP26; CYP26; P450RAI; P450RAI1	1592	cytochrome P450, family 26, subfamily A, polypeptide 1	GO:4497; GO:8152; GO:8401; GO:5489; GO:5783; GO:5792; GO:6118; GO:19825; GO:16020	CYTOCHROME P450
CYP26C1	CYP26C1		340665	cytochrome P450, family 26, subfamily C, polypeptide 1	GO:6118; GO:4497; GO:5783	CYTOCHROME P450

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CYP27A1	CYP27A1	CP27; CTX; CYP27	1593	cytochrome P450, family 27, subfamily A, polypeptide 1	GO:6118; GO:16020; GO:8395; GO:5739	CYTOCHROME P450
CYP27B1	CYP27B1	CP2B; CYP1; CYP27B; P450c1; PDDR; VDD1; VDDR; VDDR I; VDDR I; VDR	1594	cytochrome P450, family 27, subfamily B, polypeptide 1	GO:5739; GO:9110; GO:6118; GO:6629; GO:6874; GO:19825; GO:16020; GO:4497; GO:4498	CYTOCHROME P450; METHYLTRANSFERASE - RELATED
CYP2A13	CYP2A13	CPAD; CYP2A	1553	cytochrome P450, family 2, subfamily A, polypeptide 13	GO:5783; GO:5792; GO:50381; GO:6118; GO:19825; GO:16020; GO:16712	CYTOCHROME P450
CYP2A6	CYP2A6	CPA6; CYP2A; CYP2A3; P450C2A; P450PB	1548	cytochrome P450, family 2, subfamily A, polypeptide 6	GO:5783; GO:5792; GO:50381; GO:6118; GO:19825; GO:16020; GO:8389	CYTOCHROME P450
CYP2A7	CYP2A7	CPA7; CPAD; CYP2A; CYP2A7; P450-IIA4	1549	cytochrome P450, family 2, subfamily A, polypeptide 7	GO:16020; GO:4497; GO:5783; GO:5792; GO:50381; GO:6118; GO:19825	CYTOCHROME P450
CYP2B6	CYP2B6	CPB6; CYP2B; CYP2B6; IIB1; P450	1555	cytochrome P450, family 2, subfamily B, polypeptide 6	GO:5783; GO:5792; GO:50381; GO:6118; GO:16020	CYTOCHROME P450
CYP2B7 (pseudogene)	CYP2B7					
CYP2C18	CYP2C18	CPC1; CYP2C; CYP2C17; P450-6B/29C; P450IIC17	1562	cytochrome P450, family 2, subfamily C, polypeptide 18	GO:5783; GO:5792; GO:50381; GO:6118; GO:19825; GO:16020; GO:4497	CYTOCHROME P450
CYP2C19	CYP2C19	CPCJ; CYP 2C; CYP2C; P450C2C; P450IIC19	1557	cytochrome P450, family 2, subfamily C, polypeptide 19	GO:18676; GO:6118; GO:19825; GO:16020; GO:4497; GO:5783; GO:5792	CYTOCHROME P450
CYP2C8	CYP2C8	CPC8; P450 MP-12/MP-20	1558	cytochrome P450, family 2, subfamily C, polypeptide 8	GO:4497; GO:5783; GO:5792; GO:50381; GO:6118; GO:16020	CYTOCHROME P450
CYP2C9	CYP2C9	CPC9; CYP2C; CYP2C10; P450 MP-4; P450 PB-1; P450IIC9	1559	cytochrome P450, family 2, subfamily C, polypeptide 9	GO:18676; GO:6118; GO:16020; GO:4497; GO:5783; GO:5792	CYTOCHROME P450
CYP2D6	CYP2D6	CPD6; CYP2D; CYP2D@; CYP2DL1; P450-DB1; P450C2D	1565	cytochrome P450, family 2, subfamily D, polypeptide 6	GO:16020; GO:16712; GO:4497; GO:5783; GO:5792; GO:50381; GO:6118; GO:19825	CYTOCHROME P450
CYP2E1	CYP2E1	CPE1; CYP2E; P450-J; P450C2E	1571	cytochrome P450, family 2, subfamily E, polypeptide 1	GO:5783; GO:5792; GO:50381; GO:6118; GO:19825; GO:16020	CYTOCHROME P450
	CYP2F1	C2F1; CYP2F	1572	cytochrome P450, family 2, subfamily F, polypeptide 1	GO:19825; GO:16020; GO:4497; GO:5783; GO:5792; GO:50381; GO:6118	CYTOCHROME P450
CYP2J2	CYP2J2	CPJ2	1573	cytochrome P450, family 2, subfamily J, polypeptide 2	GO:5783; GO:5792; GO:50381; GO:6118; GO:6690; GO:16020; GO:8016; GO:8392	CYTOCHROME P450
CYP2S1	CYP2S1		29785	cytochrome P450, family 2, subfamily S, polypeptide 1	GO:50381; GO:6118; GO:16020; GO:4497; GO:5783; GO:5792	CYTOCHROME P450
CYP39A1	CYP39A1		51302	cytochrome P450, family 39, subfamily A, polypeptide 1	GO:6118; GO:6699; GO:7586; GO:16020; GO:30573; GO:4497; GO:8396; GO:5489; GO:5783; GO:5792	CYTOCHROME P450
CYP3A4	CYP3A4	CP33; CP34; CYP3A; CYP3A3; HLP; NF-25; P450C3; P450PCN1	1576	cytochrome P450, family 3, subfamily A, polypeptide 4	GO:5624; GO:5783; GO:5792; GO:50381; GO:6118; GO:50649; GO:6805; GO:19825; GO:16020; GO:16712	CYTOCHROME P450
CYP3A43	CYP3A43		64816	cytochrome P450, family 3, subfamily A, polypeptide 43	GO:16020; GO:5624; GO:5783; GO:5792; GO:50381; GO:6118; GO:6805	CYTOCHROME P450

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CYP3A5	CYP3A5	CP35; P450PCN3; PCN3	1577	cytochrome P450, family 3, subfamily A, polypeptide 5	GO:6118; GO:6805; GO:19825; GO:16020; GO:16712; GO:8202; GO:5624; GO:5783; GO:5792; GO:50381	CYTOCHROME P450
CYP3A7	CYP3A7	CP37; P450-HFLA	1551	cytochrome P450, family 3, subfamily A, polypeptide 7	GO:5624; GO:5783; GO:5792; GO:50381; GO:6118; GO:6805; GO:19825; GO:16020; GO:16712	CYTOCHROME P450
CYP46A1	CYP46A1	CP46; CYP46	10858	cytochrome P450, family 46, subfamily A, polypeptide 1	GO:6118; GO:6707; GO:7399; GO:16021; GO:8395; GO:5783; GO:5792	CYTOCHROME P450
CYP4A11	CYP4A11	CP4Y; CYP4A2; CYP4AII	1579	cytochrome P450, family 4, subfamily A, polypeptide 11	GO:16020; GO:8393; GO:5783; GO:5792; GO:18685; GO:6118; GO:6631	CYTOCHROME P450
CYP4B1	CYP4B1	P-450HP	1580	cytochrome P450, family 4, subfamily B, polypeptide 1	GO:5783; GO:5792; GO:50381; GO:6118; GO:19825; GO:16020; GO:4497	CYTOCHROME P450
CYP4F11	CYP4F11		57834	cytochrome P450, family 4, subfamily F, polypeptide 11	GO:5783; GO:5792; GO:50381; GO:6118; GO:16020; GO:4497	CYTOCHROME P450
CYP4F12	CYP4F12	F22329_1	66002	cytochrome P450, family 4, subfamily F, polypeptide 12	GO:50381; GO:6118; GO:16020; GO:4497; GO:5783; GO:5792	CYTOCHROME P450
CYP4F2	CYP4F2	CPF2	8529	cytochrome P450, family 4, subfamily F, polypeptide 2	GO:5783; GO:5792; GO:50051; GO:6118; GO:6691; GO:16020; GO:4497	CYTOCHROME P450
CYP4F3	CYP4F3	CPF3; CYP4F; LTB4H; family 4	4051	cytochrome P450, family 4, subfamily F, polypeptide 3	GO:4497; GO:5783; GO:5792; GO:50051; GO:6118; GO:6691; GO:16020	CYTOCHROME P450
CYP4F8	CYP4F8	CPF8; CYP4F8	11283	cytochrome P450, family 4, subfamily F, polypeptide 8	GO:50381; GO:6118; GO:6693; GO:16020; GO:8393; GO:5783; GO:5792	CYTOCHROME P450
CYP4Z1	CYP4Z1	CYP4A20	199974	cytochrome P450, family 4, subfamily Z, polypeptide 1	GO:5783; GO:5792; GO:50381; GO:6118; GO:16020; GO:4497	CYTOCHROME P450
CYP51A1	CYP51A1	CP51; CYP51; CYPL1; LDM; P450-14DM; P450L1	1595	cytochrome P450, family 51, subfamily A, polypeptide 1	GO:16021; GO:4497; GO:8398; GO:6118; GO:6695	CYTOCHROME P450
CYP5A1	TBXAS1	CYP5; CYP5A1; THAS; TS; TXAS; TXS	6916	thromboxane A synthase 1 (platelet, cytochrome P450, family 5, subfamily A)	GO:7596; GO:16021; GO:16853; GO:4497; GO:4796; GO:1516; GO:6118	CYTOCHROME P450
CYP7A1	CYP7A1	CP7A; CYP7	1581	cytochrome P450, family 7, subfamily A, polypeptide 1	GO:16020; GO:4497; GO:8123; GO:8203; GO:5783; GO:5792; GO:6118; GO:6699	CYTOCHROME P450
CYP7B1	CYP7B1	CP7B	9420	cytochrome P450, family 7, subfamily B, polypeptide 1	GO:16020; GO:4497; GO:8203; GO:8396; GO:5783; GO:5792; GO:6118; GO:6699	CYTOCHROME P450
CYP8A1	PTGIS	CYP8; CYP8A1; PGIS; PTGI	5740	prostaglandin I2 (prostacyclin) synthase	GO:16021; GO:16853; GO:4497; GO:8116; GO:1516; GO:5783; GO:6118; GO:6629	CYTOCHROME P450

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CYP8B1	CYP8B1	CP8B; CYP12	1582	cytochrome P450, family 8, subfamily B, polypeptide 1	GO:5783; GO:5792; GO:6118; GO:19825; GO:16021; GO:4497; GO:8397	CYTOCHROME P450
DPYD	DPYD	DHP; DPD	1806	dihydropyrimidine dehydrogenase	GO:6118; GO:6207; GO:6212; GO:6214; GO:15036; GO:16020; GO:16491; GO:4152; GO:4158; GO:17113; GO:5489; GO:5506; GO:5737; GO:5739	DIHYDROPYRIMIDINE DEHYDROGENASE FAMILY MEMBER
EPHX1	EPHX1	EPHX; EPOX; MEH	2052	epoxide hydrolase 1, microsomal (xenobiotic)	GO:9636; GO:6805; GO:19439; GO:16021; GO:16787; GO:4301; GO:5783; GO:5792	EPOXIDE HYDROLASE 1
EPHX2	EPHX2	CEH; SEH	2053	epoxide hydrolase 2, cytoplasmic	GO:4301; GO:8152; GO:8217; GO:17144; GO:5625; GO:5829; GO:9636; GO:6725; GO:6800; GO:6805; GO:6874; GO:6954; GO:45909; GO:42803; GO:16787	EPOXIDE HYDROLASE-RELATED
FMO1	FMO1		2326	flavin containing monooxygenase 1	GO:16021; GO:4497; GO:4499; GO:5792; GO:6118; GO:15036	DIMETHYLANILINE MONOOXYGENASE
	FMO2	FMO1B1	2327	flavin containing monooxygenase 2	GO:5792; GO:6118; GO:287; GO:16021; GO:4497; GO:4499	DIMETHYLANILINE MONOOXYGENASE
FMO3	FMO3	FMOII; MGC34400; dJ127D3.1	2328	flavin containing monooxygenase 3	GO:16021; GO:4497; GO:4499; GO:5792; GO:6118; GO:15036	DIMETHYLANILINE MONOOXYGENASE
FMO4	FMO4	FMO2	2329	flavin containing monooxygenase 4	GO:5792; GO:6118; GO:6805; GO:16021; GO:4497; GO:4499	DIMETHYLANILINE MONOOXYGENASE
FMO5	FMO5		2330	flavin containing monooxygenase 5	GO:16021; GO:4497; GO:4499; GO:5792; GO:6118; GO:15036	DIMETHYLANILINE MONOOXYGENASE
GPX1	GPX1	GSHPX1; MGC14399	2876	glutathione peroxidase 1	GO:6979; GO:16491; GO:4602	GLUTATHIONE PEROXIDASE-RELATED
GPX2	GPX2	GSHPX-GI	2877	glutathione peroxidase 2 (gastrointestinal)	GO:16491; GO:4602; GO:5489; GO:5737; GO:6979	GLUTATHIONE PEROXIDASE-RELATED
GPX3	GPX3		2878	glutathione peroxidase 3 (plasma)	GO:6982; GO:16491; GO:4602; GO:5489; GO:5576; GO:5625	
GPX4	GPX4	snGPx	2879	glutathione peroxidase 4 (phospholipid hydroperoxidase)	GO:4602; GO:47066; GO:5489; GO:5739; GO:6644; GO:6979; GO:7275; GO:16491	GLUTATHIONE PEROXIDASE-RELATED
GPX5	GPX5		2880	glutathione peroxidase 5 (epididymal androgen-related protein)	GO:6629; GO:6979; GO:16491; GO:4602; GO:5489; GO:5576	GLUTATHIONE PEROXIDASE-RELATED
GPX6	GPX6		257202	glutathione peroxidase 6 (olfactory)	GO:4602; GO:6979; GO:16491	GLUTATHIONE PEROXIDASE-RELATED
GSTA1	GSTA1	GST2; GSTA1-1; GTH1	2938	glutathione S-transferase A1	GO:16740; GO:4364; GO:8152; GO:5737	GLUTATHIONE S-TRANSFERASE
GSTA2	GSTA2	GST2; GSTA2-2; GTA2; GTH2; MGC10525	2939	glutathione S-transferase A2	GO:16740; GO:4364; GO:8152; GO:8372	GLUTATHIONE S-TRANSFERASE

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GSTA3	GSTA3	GSTA3-3; GTA3; MGC22232	2940	glutathione S-transferase A3	GO:4364; GO:8152; GO:6950; GO:16740	GLUTATHIONE S-TRANSFERASE
GSTA4	GSTA4	GSTA4-4; GTA4	2941	glutathione S-transferase A4	GO:6950; GO:16740; GO:4364; GO:8152	GLUTATHIONE S-TRANSFERASE
GSTA5	GSTA5		221357	glutathione S-transferase A5	GO:16740; GO:4364; GO:8152	GLUTATHIONE S-TRANSFERASE
GSTM1	GSTM1	GST1; GSTM1-1; GSTM1a-1a; GSTM1b-1b; GTH4; GTM1; H-B; MGC26563; MU; MU-1	2944	glutathione S-transferase M1	GO:5737; GO:16740; GO:4364; GO:8152	GLUTATHIONE S-TRANSFERASE
GSTM2	GSTM2	GST4; GSTM; GSTM2-2; GTHMUS	2946	glutathione S-transferase M2 (muscle)	GO:16740; GO:4364; GO:8152	GLUTATHIONE S-TRANSFERASE
GSTM3	GSTM3	GST5; GSTB; GSTM3-3; GTM3; MGC3310; MGC3704	2947	glutathione S-transferase M3 (brain)	GO:4364; GO:8065; GO:8152; GO:16740	GLUTATHIONE S-TRANSFERASE
GSTM4	GSTM4	GSTM4-4; GTM4; MGC9247	2948	glutathione S-transferase M4	GO:16740; GO:4364; GO:8152	GLUTATHIONE S-TRANSFERASE
GSTM5	GSTM5	GSTM5-5; GTM5	2949	glutathione S-transferase M5	GO:8152; GO:16740; GO:4364	GLUTATHIONE S-TRANSFERASE
GSTO1	GSTO1	GSTTLp28; P28	9446	glutathione S-transferase omega 1	GO:16656; GO:16740; GO:4364; GO:8152; GO:5737	GLUTATHIONE S-TRANSFERASE
GSTP1	GSTP1	DFN7; FAEES3; GST3; PI	2950	glutathione S-transferase pi	GO:7417; GO:16740; GO:4364; GO:8152	GLUTATHIONE S-TRANSFERASE
GSTT1	GSTT1		2952	glutathione S-transferase theta 1	GO:16740; GO:4364; GO:6950	GLUTATHIONE S-TRANSFERASE
GSTT2	GSTT2		2953	glutathione S-transferase theta 2	GO:16740; GO:4364	GLUTATHIONE S-TRANSFERASE
HNMT	HNMT	HNMT-S1; HNMT-S2	3176	histamine N-methyltransferase	GO:7585; GO:46539; GO:16740; GO:8168; GO:8757	HISTAMINE N-METHYLTRANSFERASE
MAOA	MAOA		4128	monoamine oxidase A	GO:8131; GO:5739; GO:6118; GO:6584; GO:42135; GO:16021; GO:7610; GO:16491	AMINE OXIDASE-RELATED
MAOB	MAOB	MGC26382	4129	monoamine oxidase B	GO:6118; GO:16021; GO:16491; GO:8131; GO:5489; GO:5740	AMINE OXIDASE-RELATED
NAT1	NAT1	AAC1	9	N-acetyltransferase 1 (arylamine N-acetyltransferase)	GO:8152; GO:16407; GO:16740; GO:4060	N-HYDROXYARYLAMINE O-ACETYLTRANSFERASE
NAT2	NAT2	AAC2	10	N-acetyltransferase 2 (arylamine N-acetyltransferase)	GO:16407; GO:16740; GO:4060; GO:8152	N-HYDROXYARYLAMINE O-ACETYLTRANSFERASE
NNMT	NNMT		4837	nicotinamide N-methyltransferase	GO:16740; GO:8112; GO:8168	N-METHYLTRANSFERASE-RELATED
NQO1	NQO1	DHQU; DIA4; DTD; NMOR1; NMORI; QR1	1728	NAD(P)H dehydrogenase, quinone 1	GO:4128; GO:5737; GO:9636; GO:6118; GO:6805; GO:6809; GO:3955; GO:7271; GO:16491	NAD(P)H DEHYDROGENASE
NR112	NR112	BXR; ONR1; PAR; PAR1; PAR2; PARq; PRR; PXR; SAR; SXR	8856	nuclear receptor subfamily 1, group I, member 2	GO:5634; GO:6355; GO:6805; GO:3700; GO:3707; GO:3713; GO:7165; GO:8202	NUCLEAR HORMONE RECEPTOR
NR113	NR113	CAR; CAR-BETA; CAR-SV1; CAR-SV10; CAR-SV12; CAR-SV13; CAR-SV14; CAR-SV21; CAR-SV4; CAR-SV6; CAR-SV7; CAR-SV8; CAR-SV9; CAR1; MB67	9970	nuclear receptor subfamily 1, group I, member 3	GO:6350; GO:6355; GO:3700; GO:3707; GO:3713; GO:7165; GO:4872; GO:4879; GO:4882; GO:5634	NUCLEAR HORMONE RECEPTOR

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NR3C1	NR3C1	GCR; GR; GRL	2908	nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)	GO:5496; GO:5634; GO:5737; GO:5759; GO:6355; GO:6366; GO:6954; GO:3700; GO:7165; GO:4883	NUCLEAR RECEPTOR SUBFAMILY 3
P450 oxidoreductase (POR)	POR	CYPOR	5447	P450 (cytochrome) oxidoreductase	GO:16020; GO:16491; GO:10181; GO:5783; GO:6118; GO:3958	NADPH-CYTOCHROME P450 REDUCTASE
PON1	PON1	ESA; PON	5444	paraoxonase 1	GO:5576; GO:9605; GO:16787; GO:4063; GO:4064	SERUM PARAOXONASE/ARYLESTERASE
PON2	PON2		5445	paraoxonase 2	GO:16020; GO:16787; GO:4063; GO:4064; GO:5576	SERUM PARAOXONASE/ARYLESTERASE
PON3	PON3		5446	paraoxonase 3	GO:9605; GO:16787; GO:4064; GO:5576	SERUM PARAOXONASE/ARYLESTERASE
PPARA	PPARA	MGC2237; MGC2452; NR1C1; PPAR; hPPAR	5465	peroxisome proliferative activated receptor, alpha	GO:4879; GO:5634; GO:6091; GO:6350; GO:6355; GO:6366; GO:6629; GO:6631; GO:3700; GO:3707	NUCLEAR HORMONE RECEPTOR
PPARD	PPARD	FAAR; MGC3931; NR1C2; NUC1; NUCI; NUCII; PPAR-beta; PPARB	5467	peroxisome proliferative activated receptor, delta	GO:5634; GO:6091; GO:6357; GO:6629; GO:3700; GO:3707	NUCLEAR HORMONE RECEPTOR
PPARG	PPARG	HUMPPARG; NR1C3; PPARG1; PPARG2	5468	peroxisome proliferative activated receptor, gamma	GO:3700; GO:3707; GO:7165; GO:7584; GO:5634; GO:6091; GO:50872; GO:6357; GO:6629	NUCLEAR HORMONE RECEPTOR
RLIP76, RALBP1	RALBP1	RIP; RIP1; RLIP76	10928	ralA binding protein 1	GO:6810; GO:6935; GO:7165; GO:16020; GO:5096	RAL INTERACTING PROTEIN
SLC10A1	SLC10A1	NTCP; NTCP1	6554	solute carrier family 10 (sodium/bile acid cotransporter family), member 1	GO:5887; GO:15293; GO:6810; GO:6814; GO:15711; GO:8508	SODIUM-DEPENDENT TRANSPORTER-RELATED
SLC10A2	SLC10A2	ASBT; ISBT; NTCP2	6555	solute carrier family 10 (sodium/bile acid cotransporter family), member 2	GO:8508; GO:5887; GO:15293; GO:6810; GO:6814; GO:15711	SODIUM-DEPENDENT TRANSPORTER-RELATED
SLC13A1	SLC13A1	NAS1; NaSi-1	6561	solute carrier family 13 (sodium/sulfate symporters), member 1	GO:5215; GO:15293; GO:6810; GO:6814; GO:16021; GO:8272	SODIUM/DICARBOXYLATE COTRANSPORTER-RELATED
SLC15A1	SLC15A1	HPECT1; HPEPT1; PEPT1	6564	solute carrier family 15 (oligopeptide transporter), member 1	GO:7586; GO:16021; GO:5215; GO:5624; GO:5887; GO:15198; GO:15293; GO:6810; GO:6857; GO:15333	OLIGOPEPTIDE TRANSPORTER-RELATED
SLC15A2	SLC15A2	PEPT2	6565	solute carrier family 15 (H+/peptide transporter), member 2	GO:15198; GO:15293; GO:6810; GO:6857; GO:15333; GO:16021; GO:5215; GO:5887	OLIGOPEPTIDE TRANSPORTER-RELATED
SLC16A1	SLC16A1	MCT; MCT1	6566	solute carrier family 16 (monocarboxylic acid transporters), member 1	GO:5215; GO:5624; GO:15130; GO:15293; GO:6810; GO:15355; GO:15711; GO:15728; GO:16021	MONOCARBOXYLATE TRANSPORTER-RELATED
SLC19A1	SLC19A1	CHMD; FOLT; IFC1; REFC; RFC1	6573	solute carrier family 19 (folate transporter), member 1	GO:16020; GO:8517; GO:8518; GO:5542; GO:5624; GO:5887; GO:6810; GO:15350; GO:15884	FOLATE-LIKE TRANSPORTER
SLC21A3	SLC01A2	OATP; OATP-A; OATP1A2; SLC21A3	6579	solute carrier organic anion transporter family, member 1A2	GO:5215; GO:6810; GO:6811; GO:15711; GO:16021; GO:8514	ORGANIC ANION TRANSPORTER
SLC21A6	SLC01B1	LST-1; OATP-C; OATP1B1; OATP2; SLC21A6	10599	solute carrier organic anion transporter family, member 1B1	GO:5215; GO:5624; GO:5887; GO:6811; GO:15347; GO:15711	ORGANIC ANION TRANSPORTER
SLC21A8	SLC01B3	LST-3TM13; OATP1B3; OATP8; SLC21A8	28234	solute carrier organic anion transporter family, member 1B3	GO:8514; GO:5215; GO:5887; GO:6811; GO:15711	ORGANIC ANION TRANSPORTER

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SLC21A9	SLC02B1	KIAA0880; OATP-B; OATP2B1; OATPB; SLC21A9	11309	solute carrier organic anion transporter family, member 2B1	GO:5215; GO:6811; GO:16021	ORGANIC ANION TRANSPORTER
SLC22A1	SLC22A1	HOCT1; OCT1; oct1_cds	6580	solute carrier family 22 (organic cation transporter), member 1	GO:16021; GO:5524; GO:5624; GO:5887; GO:15075; GO:15101; GO:15293; GO:6811; GO:6814; GO:15695	TRANSMEMBRANE TRANSPORTER
SLC22A2	SLC22A2	OCT2	6582	solute carrier family 22 (organic cation transporter), member 2	GO:5215; GO:5524; GO:5624; GO:5887; GO:15075; GO:15101; GO:15293; GO:6810; GO:6811; GO:6814; GO:15695; GO:7589; GO:16021	TRANSMEMBRANE TRANSPORTER
SLC22A3	SLC22A3	EMT; EMTH; OCT3	6581	solute carrier family 22 (extraneuronal monoamine transporter), member 3	GO:15075; GO:15101; GO:6811; GO:15695; GO:5624; GO:5887	TRANSMEMBRANE TRANSPORTER
SLC22A4	SLC22A4	MGC34546; OCTN1	6583	solute carrier family 22 (organic cation transporter), member 4	GO:15075; GO:15293; GO:6811; GO:6814; GO:16021; GO:5524	TRANSMEMBRANE TRANSPORTER
SLC22A5	SLC22A5	OCTN2	6584	solute carrier family 22 (organic cation transporter), member 5	GO:5524; GO:5886; GO:15075; GO:15226; GO:15293; GO:6811; GO:6814; GO:15879; GO:16021	TRANSMEMBRANE TRANSPORTER
SLC22A6	SLC22A6	HOAT1; MGC45260; OAT1; PAHT; ROAT1	9356	solute carrier family 22 (organic anion transporter), member 6	GO:8514; GO:5524; GO:5624; GO:5887; GO:15075; GO:6811; GO:15711; GO:15742; GO:16021	TRANSMEMBRANE TRANSPORTER
SLC22A8	SLC22A8	MGC24086; OAT3	9376	solute carrier family 22 (organic anion transporter), member 8	GO:5215; GO:5524; GO:5624; GO:5887; GO:15075; GO:6810; GO:6811; GO:15711; GO:16021; GO:8514	TRANSMEMBRANE TRANSPORTER
SLC28A1	SLC28A1	CNT1; HCNT1	9154	solute carrier family 28 (sodium-coupled nucleoside transporter), member 1	GO:5337; GO:5415; GO:5624; GO:5887; GO:6139; GO:6810; GO:15858; GO:16020	SODIUM/NUCLEOSIDE COTRANSPORTER
SLC28A2	SLC28A2	CNT2; HCNT2; HsT17153; SPNT1	9153	solute carrier family 28 (sodium-coupled nucleoside transporter), member 2	GO:6139; GO:15211; GO:6810; GO:15860; GO:5415; GO:5624; GO:5887	SODIUM/NUCLEOSIDE COTRANSPORTER
SLC28A3	SLC28A3	CNT3	64078	solute carrier family 28 (sodium-coupled nucleoside transporter), member 3	GO:5415; GO:6810; GO:16020	SODIUM/NUCLEOSIDE COTRANSPORTER
SLC29A1	SLC29A1	ENT1	2030	solute carrier family 29 (nucleoside transporters), member 1	GO:5337; GO:5624; GO:5887; GO:6139; GO:6810; GO:15858	EQUILBRATIVE NUCLEOSIDE TRANSPORTER
SLC29A2	SLC29A2	DER12; ENT2; HNP36	3177	solute carrier family 29 (nucleoside transporters), member 2	GO:16020; GO:8283; GO:5337; GO:5730; GO:5887; GO:6139; GO:6810; GO:15858	EQUILBRATIVE NUCLEOSIDE TRANSPORTER
SLC5A6	SLC5A6	SMVT	8884	solute carrier family 5 (sodium-dependent vitamin transporter), member 6	GO:8523; GO:5215; GO:5624; GO:5887; GO:9374; GO:15293; GO:6810; GO:6814	SODIUM/SOLUTE SYMPORTER
SLC7A5	SLC7A5	CD98; D16S469E; E16; LAT1; MPE16	8140	solute carrier family 7 (cationic amino acid transporter, y+ system), member 5	GO:16021; GO:5886; GO:6520; GO:15175; GO:6810; GO:6865; GO:15359	AMINO ACID TRANSPORTER
SLC7A7	SLC7A7	LAT3; LPI; Y+LAT1; y+LAT-1	9056	solute carrier family 7 (cationic amino acid transporter, y+ system), member 7	GO:5887; GO:6461; GO:6520; GO:6810; GO:6865; GO:16021; GO:5279; GO:5286	AMINO ACID TRANSPORTER
SPG7	SPG7	CAR; CMAR; PGN	6687	spastic paraplegia 7, paraplegin (pure and complicated autosomal recessive)	GO:51082; GO:7155; GO:7165; GO:30155; GO:30163; GO:7399; GO:166; GO:16021; GO:4222; GO:17111; GO:5524; GO:5578; GO:5739; GO:6508	AAA-FAMILY ATPASE

Gene ID	Official Gene Symbol	Alias	Entrez Gene ID	Gene Description	Gene Ontology	Panther Protein Family
SULT1E1	SULT1E1	EST; EST-1; MGC34459; STE	6783	sulfotransferase family 1E, estrogen-preferring, member 1	GO:16740; GO:4304; GO:8202; GO:5496	SULFOTRANSFERASE-RELATED
SULT1A1	SULT1A1	HAST1/HAST2; MGC5163; P-PST; PST; ST1A3; STP; STP1; TSPST1	6817	sulfotransferase family, cytosolic, 1A, phenol-preferring, member 1	GO:9308; GO:6584; GO:6629; GO:16740; GO:4062; GO:8146; GO:8202	SULFOTRANSFERASE-RELATED
SULT1A2	SULT1A2	HAST4; P-PST; ST1A2; STP2; TSPST2	6799	sulfotransferase family, cytosolic, 1A, phenol-preferring, member 2	GO:9309; GO:6584; GO:16740; GO:4062; GO:8202	
SULT1A3	SULT1A3	HAST; HAST3; M-PST; STM; TL-PST	6818	sulfotransferase family, cytosolic, 1A, phenol-preferring, member 3	GO:7268; GO:16740; GO:4062; GO:8202; GO:5737; GO:6584; GO:6629	
SULT1B1	SULT1B1	MGC13356; ST1B2; SULT1B2	27284	sulfotransferase family, cytosolic, 1B, member 1	GO:6576; GO:16740; GO:8146; GO:8202	SULFOTRANSFERASE-RELATED
SULT1C1	SULT1C1	ST1C1; ST1C2; SULT1C#1; humSULTC2	6819	sulfotransferase family, cytosolic, 1C, member 1	GO:9308; GO:16740; GO:8146; GO:5737	SULFOTRANSFERASE-RELATED
SULT2A1	SULT2A1	DHEA-ST; HST; ST2; ST2A3; STD; hSTa	6822	sulfotransferase family, cytosolic, 2A, dehydroepiandrosterone (DHEA)-preferring, member 1	GO:8202; GO:7586; GO:30573; GO:16740; GO:4027	SULFOTRANSFERASE-RELATED
SULT2B1	SULT2B1	HSST2	6820	sulfotransferase family, cytosolic, 2B, member 1	GO:4027; GO:8202; GO:16740	SULFOTRANSFERASE-RELATED
SULT4A1	SULT4A1	BR-STL-1; BRSTL1; DJ388M5.3; MGC40032; NST; SULTX3; hBR-STL-1	25830	sulfotransferase family 4A, member 1	GO:16740; GO:8146; GO:8202; GO:5829	SULFOTRANSFERASE-RELATED
TAP1	TAP1	ABC17; ABCB2; APT1; D6S114E; PSF1; RING4; TAP1*0102N; TAP1N	6890	transporter 1, ATP-binding cassette, sub-family B (MDR/TAP)	GO:5524; GO:5783; GO:15198; GO:6857; GO:6955; GO:42626; GO:166; GO:16021; GO:16887	ATP-BINDING CASSETTE TRANSPORTER
TAP2	TAP2	ABC18; ABCB3; APT2; D6S217E; PSF2; RING11	6891	transporter 2, ATP-binding cassette, sub-family B (MDR/TAP)	GO:42288; GO:42301; GO:42605; GO:42626; GO:19885; GO:42825; GO:166; GO:16021; GO:46967; GO:16887; GO:46980; GO:46982; GO:4409; GO:5524; GO:5788; GO:5829; GO:48004; GO:6461; GO:6886; GO:15433; GO:15833	ATP-BINDING CASSETTE TRANSPORTER
TPMT	TPMT		7172	thiopurine S-methyltransferase	GO:5737; GO:6139; GO:16740; GO:8119; GO:8152; GO:8168	THIOPURINE S-METHYLTRANSFERASE
TYMS	TYMS	HsT422; TMS; TS; TSase	7298	thymidylate synthetase	GO:16740; GO:4799; GO:8168; GO:9157; GO:9165; GO:6139; GO:6231	THYMIDYLATE SYNTHASE
UGT1A1	UGT1A1	GNT1; HUG-BR1; UDPGT; UGT1; UGT1*1; UGT1A	54658	UDP glycosyltransferase 1 family, polypeptide A1	GO:5792; GO:15020; GO:6789; GO:7586; GO:16021; GO:8152; GO:8210	UDP-GLUCURONYL TRANSFERASE
UGT1A10	UGT1A10	UDPGT; UGT1J	54575	UDP glycosyltransferase 1 family, polypeptide A10	GO:16021; GO:8152; GO:5792; GO:15020	
UGT1A3	UGT1A3	UGT1*3; UGT1C	54659	UDP glycosyltransferase 1 family, polypeptide A3	GO:16021; GO:8152; GO:5792; GO:15020	
UGT1A4	UGT1A4	HUG-BR2; UDPGT; UGT1*4; UGT1D	54657	UDP glycosyltransferase 1 family, polypeptide A4	GO:16021; GO:8152; GO:5783; GO:5792; GO:15020	
UGT1A5	UGT1A5	UDPGT; UGT1*5; UGT1E	54579	UDP glycosyltransferase 1 family, polypeptide A5	GO:8152; GO:5792; GO:15020; GO:6805; GO:16021	
UGT1A6	UGT1A6	GNT1; HLUGP; HLUGP1; MGC29860; UDPGT; UGT1; UGT1*6; UGT1F	54578	UDP glycosyltransferase 1 family, polypeptide A6	GO:15020; GO:6805; GO:16021; GO:16758; GO:8152; GO:5792	

