

Table 2S. Mutation data from the UniProt humsavar database used for the blind dataset (BS292).

UniProt ID Gene	Mutation	dbSNP identifier	
P04798 CYP1A1	G45D	rs4646422	
	M66V	rs35035798	
	I78T	rs17861094	
	R93W	rs2229150	
	T173R	rs28399427	
	R279W	rs34260157	
	I286T	rs4987133	
	M331I	rs56313657	
	I448N	-	
	T461N	rs1799814	
	I462V	rs1048943	
	R464C	-	
	R464S	rs41279188	
	F470V	rs36121583	
	R477W	rs56240201	
	V482M	rs28399429	
	P492R	rs28399430	
	P05177 CYP1A2	S18C	rs17861152
		F21L	rs56160784
		P42R	-
G73R		rs45565238	
T83M		-	
D104N		rs34067076	
L111F		rs45442197	
E168Q		-	
F186L		-	
F205V		rs45540640	
S212C		-	
R281W		rs45468096	
S298R		rs17861157	
G299S		rs35796837	
I314V		rs28399418	
D348N		rs56276455	
R377Q		-	
I386F		-	
C406Y		rs55889066	
R431W		rs28399424	
T438I		rs45486893	
R456H		-	
R457W		rs34151816	
Q6UW02 CYP20A1	S97L	rs2043449	

	L346F	rs1048013
Q6V0L0 CYP26C1		
	R245Q	rs11187265
Q4G0S4 CYP27C1		
	T359M	rs35075135
Q16696 CYP2A13		
	R25Q	rs8192784
	R101Q	-
	D158E	-
	R257C	rs8192789
	V323L	-
	F453Y	-
	R494C	-
P11509 CYP2A6		
	G5R	rs28399434
	S29N	rs28399435
	V110L	-
	F118L	rs28399440
	R128Q	rs4986891
	R128L	-
	S131A	rs59552350
	L160H	rs1801272
	K194E	-
	R203S	rs56256500
	R203C	-
	S224P	-
	V292M	rs2644906
	T294S	rs4997557
	V365M	rs28399454
	F392Y	rs1809810
	N418D	rs28399463
	E419D	rs8192730
	N438Y	-
	I471T	rs5031016
	K476R	rs6413474
	G479V	rs5031017
	R485L	rs28399468
P20853 CYP2A7		
	F61I	rs10425176
	C64R	rs10425169
	D169E	rs4142867
	H274R	rs4079366
	A301G	rs2545754
	R311C	rs3869579
	M368T	rs2261144
	V479G	rs12460590

P20813|CYP2B6

Q21L	rs34883432
R22C	rs8192709
T26S	rs33973337
D28G	rs33980385
R29S	rs33926104
R29P	rs34284776
M46V	rs35303484
G99E	rs36060847
K139E	-
R140Q	rs35773040
P167A	rs3826711
Q172H	rs3745274
S259R	rs45482602
K262R	rs2279343
N289K	rs34277950
T306S	rs34698757
I328T	rs28399499
I391N	rs35979566
R487C	rs3211371

P33260|CYP2C18

T385M	rs2281891
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P33261|CYP2C19

L17P	rs55752064
I19L	rs17882687
S51G	-
M74T	rs28399505
E92D	rs17878459
W120R	rs41291556
E122A	rs17885179
R132Q	-
R144H	rs17884712
R150H	rs58973490
A161P	-
F168L	rs28399510
P227L	rs6413438
R329H	-
V331I	rs3758581
R410C	rs17879685
R433W	rs56337013
R442C	-

P10632|CYP2C8

R139K	rs11572080
I244V	rs11572102
I264M	rs1058930
I269F	rs11572103

	L390S	-
	K399R	rs10509681
P11712 CYP2C9	L19I	-
	R144C	rs1799853
	R150H	rs7900194
	H251R	rs2256871
	E272G	rs9332130
	R335W	rs28371685
	Y358C	rs1057909
	I359L	rs1057910
	I359T	rs56165452
	D360E	rs28371686
	L413P	rs28371687
	G417D	-
	P489S	rs9332239
P10635 CYP2D6	V11M	rs769258
	R26H	rs28371696
	R28C	-
	P34S	rs1065852
	G42R	rs5030862
	A85V	-
	L91M	rs28371703
	H94R	rs28371704
	T107I	rs28371706
	F120I	rs1135822
	E155K	rs28371710
	G169R	-
	G212E	rs5030866
	L231P	rs17002853
	A237S	rs28371717
	R296C	rs16947
	I297L	-
	A300G	rs1058170
	S311L	rs1800754
	H324P	rs5030867
	R329L	rs3915951
	R343G	-
	R365H	rs1058172
	I369T	-
	G373S	rs2856959
	E410K	-
	E418K	-
	P469A	rs1135833
	H478Y	rs28371735

P05181 CYP2E1	S486T	rs1135840
	R76H	-
	V179I	rs6413419
	N219D	rs41299426
	S366C	rs41299434
	V389I	rs55897648
	H457L	rs28969387
P24903 CYP2F1	S38P	rs58285195
	R98P	rs57670668
	D218N	-
	Q266H	-
	L391P	-
	P490L	rs7246981
	P51589 CYP2J2	R49S
V113M		rs11572242
N124S		rs2228113
T143A		rs55753213
R158C		rs56307989
I192N		-
D342N		rs56053398
N404Y		-
Q96SQ9 CYP2S1	P466L	rs34971233
Q8TAV3 CYP2W1	A181T	rs3735684
Q9NYL5 CYP39A1	R23P	rs12192544
	R103H	rs2277119
	Y288H	rs17856332
	N324K	rs7761731
P08684 CYP3A4	L15P	rs12721634
	G56D	rs56324128
	K96E	rs3091339
	I118V	rs55951658
	R130Q	-
	R162Q	rs4986907
	V170I	-
	D174H	-
	T185S	rs12721627
	F189S	rs4987161
	P218R	rs55901263
	S222P	rs55785340

	S252A	rs3208363
	L293P	rs28371759
	T349N	rs10250778
	T363M	-
	L373F	rs12721629
	P416L	rs4986909
	I431T	rs1041988
	M445T	rs4986910
	P467S	rs4986913
Q9HB55 CYP3A43		
	T27A	rs45558032
	M145I	rs45450092
	M275I	rs45621431
	P340A	rs680055
P20815 CYP3A5		
	R28C	rs55817950
	H30Y	rs28383468
	Q200R	rs56411402
	D277E	rs28383477
	A337T	rs28383479
	I371V	rs28365092
	T398N	rs28365083
	F446S	rs41279854
	I488T	rs28365085
P24462 CYP3A7		
	V71A	rs45580339
	R409T	rs2257401
Q02928 CYP4A11		
	N226S	rs12759923
	S353G	-
	F434S	rs1126742
Q5TCH4 CYP4A22		
	R11C	-
	Y104F	rs61507155
	K121R	rs2758717
	R126W	rs12564525
	G130S	rs2056900
	N152Y	rs2056899
	V185F	-
	S226N	rs35202523
	C230S	rs35156123
	C231R	rs10789501
	K276T	-
	L428P	rs2405599
	M491I	rs2758714
	L509F	rs4926600

P13584 CYP4B1	A111V	rs45559437
	R173W	rs4646487
	R264W	rs45446505
	R274Q	rs45578838
	S322G	rs45467195
	Y329S	rs12094024
	M331I	rs2297810
	R340C	rs4646491
	V345I	-
	F354C	rs17102592
	R375C	rs2297809
	R482Q	rs45622937
Q9HBI6 CYP4F11	R146C	rs57519667
	C276R	rs8104361
	D284N	rs1060463
Q9HCS2 CYP4F12	P13L	rs16995376
	T16M	rs16995378
	N76D	rs609636
	I90V	rs609290
	C188R	rs2285888
	S522G	rs593818
P78329 CYP4F2	S7Y	rs3093104
	W12G	rs3093105
	G185V	rs3093153
	A269D	rs1805040
	V433M	rs2108622
	L519M	rs3093200
Q08477 CYP4F3	H96Q	rs34923393
	Y106C	rs35888783
	A269D	rs1805040
	V270I	rs28371536
	I271T	rs28371479
P98187 CYP4F8	Y125F	rs2072600
	P447Q	rs2056822
Q86W10 CYP4Z1	P393L	rs28463559
Q16850 CYP51A1	V13A	rs2229188
P22680 CYP7A1	H86N	rs62621283

	F100S	-
	N233S	rs8192874
	D347N	rs8192875
Q9UNU6 CYP8B1		
	S88P	rs9865715
	R234H	-
	K238R	rs35764459
	L357F	rs35637877