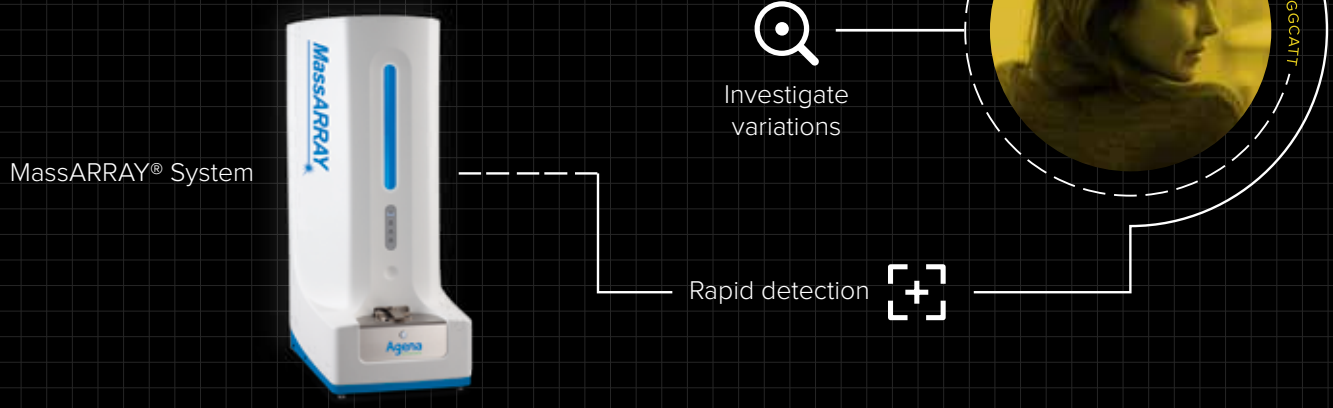
iPLEX® ADME PGx Pro Panel

THE SCIENCE OF MAKING IT PERSONAL



Investigate pharmacogenetic variations for clinical research trials and group stratification with high accuracy and speed.

The iPLEX® ADME PGx Pro Panel is a set of pre-designed SNP, INDEL, and CNV assays, for use with the MassARRAY System, for the investigation of polymorphisms with known relevance to drug metabolism.

- Rapidly detect the most important haplotypes related to 36 key genes that are known to influence drug ADME/T (see table).
- Obtain biologically relevant data from greater than 99% of assays in PharmaADME working group core list.[1]
- Benefit from the accuracy of the MassARRAY System and process from 10 to over 300 gDNA samples per day.
- Identify SNPs, INDELs and copy number variants (CNVs) from the same multiplex reaction well.

Assays by Agena also offers panels for in-depth analysis of *CYP2D6*, *CYP2C19*, and *CYP2C9/VKORC1*. See ***www.agenabio.com/pharmacogenomics*** for more information.

GENES ANALYZED WITH THE iPLEX ADME PGx PRO PANEL

ABCB1	CYP2C8	GSTT1	SLCO1B3
ABCC2	CYP2C9	GSTT2b	SLCO2B1
ABCG2	CYP2D6	NAT1	SULT1A1
COMT	CYP2E1	NAT2	TPMT
CYP1A1	CYP3A4	SLC15A2	UGT1A1
CYP1A2	CYP3A5	SLC22A1	UGT2B15
CYP2A6	DPYD	SLC22A2	UGT2B17
CYP2B6	GSTM1	SLC22A6	UGT2B7
CYP2C19	GSTP1	SLCO1B1	VKORC1

See back for detailed list of haplotypes.

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PHARMACOGENOMICS

For Research Use Only. Not for use in diagnostic procedures.

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THE MASSARRAY WORKFLOW

The iPLEX ADME PGx Pro Panel contains specific pre-designed PCR primers, extension primers, and iPLEX Pro reagents. Samples are analyzed in eight multiplex wells, each with 10 ng of genomic DNA, from fresh or frozen whole blood or cells. After sample processing, the MassARRAY MALDI-TOF mass spectrometer is used for genotype detection and quantification. Haplotype reports are automatically generated using Typer software and ADME PGx Pro Software.

THROUGHPUT

The iPLEX ADME PGx Pro Panel contains multi-plexed assays in 8 wells. The panel can be run in 96-well format (12 samples per plate) or 384-well format (48 samples per plate). Twelve to 384 samples can be processed per day, providing flexibility in sample throughput and batching requirements.

ORDERING INFORMATION

CAT NO	FORMAT	SAMPLES/KIT
10302	2 x 96	24
10299	2 x 384	96
10297	10 x 96	120
10298	10 x 384	480

iPLEX ADME PGx PRO PANEL COMPONENTS

AMPLIFY	PCR Enzyme PCR Accessory Set ADME PGx PCR Primers
EXTEND	iPLEX Pro Reagent Set ADME PGx Extend Primers
DETECT	SpectroCHIP Array and Resin Kit
ANALYZE	Typer Software v4.0.20 or higher ADME PGx Pro Software v1.0.2 +

‡ If only mutations are present (i.e. no * allele), only the number of mutations detected plus WT is counted; combinations of different mutations have been observed but are not counted toward haplotype groups.

§ For COMT, A-F are arbitrary haplotypes as only *1 and *2 are mentioned in the literature.

1. Williams JA, et al. PhRMA White Paper on ADME Pharmacogenomics. *J Clin Pharmacol*. 2008;48:849-889.

GENE	NUMBER OF HAPLOTYPE GROUPS‡	HAPLOTYPES (Haplotypes which are indistinguishable with the iPLEX ADME PGx Pro Panel are shown in parentheses)
ABCB1	11	*1, (*1e;g;h;p), (*2;*12;*15), *4, *6, (*8;*16), (*8A;*16A), *9, (*10;*13;*17), *11, *18
ABCC2	7	(*1A;*1B;*3), *1C, *2, *4, *5, *6, *7
ABCG2	3‡	WT, Q141K, Q126X
COMT§	8	*1, *2, A, B, C, D, E, F
CYP1A1	9	*1, *2, *3, *4, *5, *6, *7, *8, *9
CYP1A2	6	*1A, *1C, *1K, *1L, (*1F;J), *7
CYP2A6	13 plus CNV	*1, *1X2b, *2, *5, *6, (*7;*10;*19;*36;*37), *8, (*9;*13;*15), *11, *12, *17, *20, *26
CYP2B6	7 plus CNV	*1, (*2;*10), (*6;*7;*19;*20;*29), *8, *13, (*16;*18), *28
CYP2C8	7	*1, *2, *3, *4, *5, *7, *8
CYP2C9	15	*1, *2, (*3;*18), *4, *5, *6, *8, *9, *10, *11, *12, *13, *15, *25,*27
CYP2C19	12	*1, (*1B;C;*9), *2, *3, *4, *5A, *5B, *6, *7, *8, *12, *17
CYP2D6	32 plus CNV	*1A, (*2A;*31;*51), (*2L;*35;*71), *3, *4, *4M, *6, *7, *8, *9, (*10;*36;*37; *47;*49;*52;*54;*57;*65;*72), *11, *12, *14A, *14B, *15, *17, *18, *19, *20, *21A, *21B, *30, *40, *41, *42, *44, *56A, *56B, *58, *64, *69
CYP2E1	3	*1, *2, *7
CYP3A4	5	*1, *2, *6, *20, *22
CYP3A5	6	*1, *3, *5, *6, *7, (*3K;*10)
DPYD	6	*1, *2, *7, *8, *9, *10
GSTM1	2	*A, *B
GSTP1	4	A, B, C, D
GSTT1	CNV only	
GSTT2b	CNV only	
NAT1	8	*4, *5, *14, *17, *19, *22, *15, *11
NAT2	33	*4, *5, *5A, *5C, *5D, *5E, *5G, *5J, *5K, *5P, *6, *6B, *6C, *6E, *6F, (*6I;J), *7A, *7B, *7C, *11, *12, (*12B;E), *12C, *13, *14, (*14B;H), *14C, *14D, *14E, *14F, *14G, *14I, *19
SLC15A2	3	*1, *2, *3
SLC22A1	16‡	WT, AAGTTGGT, TGGTAAGT, R61C, C88R, G220V, P283L, R287G, P341L, G401S, M408V, M420X-1, M420X-2, M420X-3, MI420I, G465R
SLC22A2	6‡	WT, P54S, M165V, S270A, R400C, K432Q
SLC22A6	2‡	WT, R50H
SLCO1B1	11	(*1A,*4,*6,*7,*8), (*1B;*14), *2, *3, *5, *9, *10, *11, *12, *13, (*15;*16;*17)
SLCO1B3	3‡	WT, S112A, M233I
SLCO2B1	2‡	WT, S464F
SULT1A1	4 plus CNV	(*1;*5;*6), (*2;*7), *3, *4
TPMT	7	*1, *2, (*3A;*3D), *3B, *3C, *4, *8
UGT1A1	7	*1, *6A, *6B, *7, *27, *29, *60
UGT2B15	2‡	WT, Y85D
UGT2B17	CNV only	
UGT2B7	2	*1, *2
VKORC1	4	*1, *2, *3, *4
TOTAL	266	

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