iPLEX® ADME
CYP2C9 / VKORC1 Panel[1] v1.0
Available through Assays by Sequenom

Investigate and confirm pharmacogenetic biomarkers in CYP2C9 and VKORC1 genes associated with drug metabolism with high accuracy and rapid results.

The iPLEX ADME CYP2C9 / VKORC1 Panel is a set of 45 pre-designed and pre-validated SNP assays for use in the screening of polymorphisms in CYP2C9 (36 SNPs) and VKORC1 (9 SNPs) genes. Screening for CYP2C9 and VKORC1 variants allows clinical researchers develop dosing protocols and surveillance techniques toward model drugs and experimental biomarkers.

- Analyze 45 mutations in 2 pharmacogenetically relevant genes
- Obtain biologically relevant data with CYP2C9 / VKORC1 panel covering most of the known haplotypes for both genes
- Use as little as 30 ng of DNA per sample

Contact:

Sequenom Inc.
3595 John Hopkins Ct
San Diego, CA 92121

USA: 1 877 4GENOME
EU: (+49) 40-899676-0
AP: (+61) 7 3845 3691

Gene	Alleles		
CYP2C9	CYP2C9*1A	CYP2C9*9	CYP2C9*22
	CYP2C9*1B	CYP2C9*10	CYP2C9*23
	CYP2C9*1C	CYP2C9*11A	CYP2C9*24
	CYP2C9*1D	CYP2C9*11B	CYP2C9*25
	CYP2C9*2A	CYP2C9*12	CYP2C9*26
	CYP2C9*2B	CYP2C9*13	CYP2C9*27
	CYP2C9*2C	CYP2C9*14	CYP2C9*28
	CYP2C9*3A	CYP2C9*15	CYP2C9*29
	CYP2C9*3B	CYP2C9*16	CYP2C9*30
	CYP2C9*4	CYP2C9*17	CYP2C9*31
	CYP2C9*5	CYP2C9*18	CYP2C9*32
	CYP2C9*6	CYP2C9*19	CYP2C9*33
	CYP2C9*7	CYP2C9*20	CYP2C9*34
	CYP2C9*8	CYP2C9*21	CYP2C9*35

Gene	Alleles	
VKORC1	*1	BHT4
	*2/H1	H2/H5
	*2A	H4
	*2B	H6
	*3	H7A
	*3F;BHT3	H7B
	*4	H8
	*7RE	H9
	BHT2RE	

[1] The iPLEX ADME CYP2C9 / VKORC1 Panel is For Research Use only. Not for use in diagnostic procedures.

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Analysis Method

Screening with iPLEX ADME CYP2C9/VKORC1 panel is performed by PCR amplification and primer extension using the iPLEX® ADME CYP2C9/VKORC1 reagents. The panel consists of 3 multiplexed wells that are run on each sample using 10ng of input DNA per well. Mutations are detected after the sample run.

Equipment and Software Required

- MassARRAY® System[1]
- MassARRAY NanoDispenser[1]
- Typer Software[1] version 4.0.20

Ordering Information:

2 x 384 Format

10 x 384 Format

10 x 96 Format

iPLEX ADME CYP2C9/VKORC1 PCR Primers[1]

iPLEX ADME CYP2C9/VKORC1 Extend Primers[1]

PCR Reagent Sets

iPLEX Pro Extension Reagent Set[1]

To place an order, please contact the order desk at orderdesk@sequenom.com, or call (858) 202-9215.

AVAILABLE THROUGH
ASSAYS BY SEQUENOM

CYP2C9 Allele Nomenclature

Allele	Nucleotide changes	Amino acid change	dbSNP IDs
CYP2C9*1A	None		
CYP2C9*1B	-2665_-2664delTG; -1188T>C		rs71486745; rs4918758
CYP2C9*1C	-1188T>C		rs4918758
CYP2C9*1D	-2665_-2664delTG		rs71486745
CYP2C9*2A	-1188T>C; 430C>T	R144C	rs4918758; rs1799853
CYP2C9*2B	-2665_-2664delTG; -1188T>C; 430C>T	R144C	rs71486745; rs4918758; rs1799853
CYP2C9*2C	430C>T	R144C	rs1799853
CYP2C9*3A	1075A>C	I359L	rs1057910
CYP2C9*3B	-1188T>C; 1075A>C	I359L	rs4918758; rs1057910
CYP2C9*4	1076T>C	I359T	rs56165452
CYP2C9*5	1080C>G	D360E	rs28371686
CYP2C9*6	818delA	273Frame shift	rs9332131
CYP2C9*7	55C>A	L19I	rs67807361
CYP2C9*8	449G>A	R150H	rs7900194
CYP2C9*9	752A>G	H251R	rs2256871
CYP2C9*10	815A>G	E272G	rs9332130
CYP2C9*11A	1003C>T	R335W	rs28371685
CYP2C9*11B	-2665_-2664delTG; -1188T>C; 1003C>T	R335W	rs71486745; rs4918758; rs28371685
CYP2C9*12	1465C>T	P489S	rs9332239
CYP2C9*13	269T>C	L90P	rs72558187
CYP2C9*14	374G>A	R125H	rs73994288
CYP2C9*15	485C>A (linkage with -1188T>C can not be excluded)	S162X	rs72558190
CYP2C9*16	-1188T>C; 895A>G	T299A	rs4918758; rs72558192
CYP2C9*17	1144C>T	P382S	C09C1144T
CYP2C9*18	-1188T>C; 1075A>C; 1190A>C; 1425A>T	I359L; D397A	rs4918758; rs1057910; rs72558193; rs1057911
CYP2C9*19	-1188T>C; 1362G>C	Q454H	rs4918758; C09G1362C
CYP2C9*20	-1188T>C; 208G>C	G70R	rs4918758; C09G208C
CYP2C9*21	89C>T	P30L	C09C89T
CYP2C9*22	121A>G	N41D	C09A121T
CYP2C9*23	226G>A	V76M	C09G226A
CYP2C9*24	1060G>A Existence of the CYP2C9*2 polymorphism 430C>T on the same allele can not be excluded	E354K	C09G1060A
CYP2C9*25	353_362delAGAAATGGAA	118Frameshift	rs72558188
CYP2C9*26	-1188T>C; 389C>G	T130R	rs4918758; rs5031019
CYP2C9*27	-2665_-2664delTG;-1188T>C; 449G>T	R150L	rs71486745; rs4918758; rs7900194
CYP2C9*28	641A>T	Q214L	C09A641T
CYP2C9*29	835C>A	P279T	C09C835A
CYP2C9*30	1429G>A	A477T	C09G1429A
CYP2C9*31	980T>C	I327T	rs57505750
CYP2C9*32	1468G>T	V490F	C09G1468T
CYP2C9*33	395G>A	R132Q	rs72558184
CYP2C9*34	1004G>A	R335Q	C09G1004A
CYP2C9*35	374G>T; 430C>T	R125L; R144C	rs73994288; rs1799853

VKORC1 Allele Nomenclature

Allele	Nucleotide changes	Amino acid change	dbSNP IDs
1	None		None
2/H1	7566C>T; 11639G>A; 6484C>T		rs2359612; rs9923231; rs9934438
2A	7566C>T; 6853G>C; 11639G>A; 6484C>T		rs2359612; rs8050894; rs9923231; rs9934438
2B	5808T>G; 6484C>T;6853G>C; 7566C>T; 11639G>A		rs2884737; rs9934438; rs8050894; rs2359612; rs9923231
3	9041G>A		rs7294
3F;BHT3	8773C>T; 9041G>A	P83L	rs7200749; rs7294
4	6009C>T		rs17708472
7RE	7566C>T; 11639G>A		rs2359612; rs9923231
BHT2RE	6009C>T; 6853G>C		rs17708472; rs8050894
BHT4	7566C>T		rs2359612
H2/H5	7566C>T; 5808T>G; 11639G>A; 6484C>T		rs2884737; rs2359612; rs9923231; rs9934438
H4	7566C>T; 6853G>C		rs2359612; rs8050894
H6	6853G>C		rs8050894
H7A	9041G>A; 6853G>C; 8773C>T	P83L	rs7294; rs8050894; rs7200749
H7B	9041G>A; 6853G>C		rs7294; rs8050894
H8	861C>A; 9041G>A; 6853G>C		rs17708472; rs7294; rs8050894
H9	6009C>T; 861C>A; 6853G>C		rs17708472; rs17880887; rs8050894

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