

Figure 2: Primer Design Results

Design Run
 Name: rs911903, rs223201, ... Date: 8/16/2007 3:43:55 PM
 Method: ASPE-SNP Mode: Express
 Status: Complete Speed: Fast
 # Sequences: 9 # With Assays: 9
 # SNP Assays: 0
 # Multiplexes: 20
 # Submitted Sequences: 9
 # Included Sequences: 9
 # Failed Sequences: 0
 # Incompatible Sequences: 0

Results
Multiplex 223A5B05 62.99

rs911903-Y-80	Assay 0005	62.37
Oligo	Rank	Tm GC% Length 5' Pos 3' Pos 5'-Sequence-3'
Allele1	84.03	51.0 40 15 66 80 W CCCTTCCAGCTCAAG
Allele2	89.23	49.5 53 15 66 80 W CCCTTCCAGCTCAAG
Forward	85.47	60.4 50 10 21 38 TTCTGTATGCCACGATGA
Reverse	89.83	60.4 48 21 129 109 CATTGAAOCCCTCTGTGTATG

Identified Mis-Alignments

Self Align	Dimer	3' Align	Hairpin	Total ΔG*	Pair Align	Dimer	3' Align	Bi-ΔG*
Allele1	4	1	2	-10.69	Allele1/Allele2	4	1	.00
Allele2	4	2	2	-10.82	Forward/Reverse	3	3	.00
Forward	2	2	2	-10.36	Allele1/Reverse	4	4	.00
Reverse	3	3	3	-10.34	Allele2/Forward	3	3	.00
					Allele2/Reverse	4	4	.00
					Allele1/Forward	3	3	.00

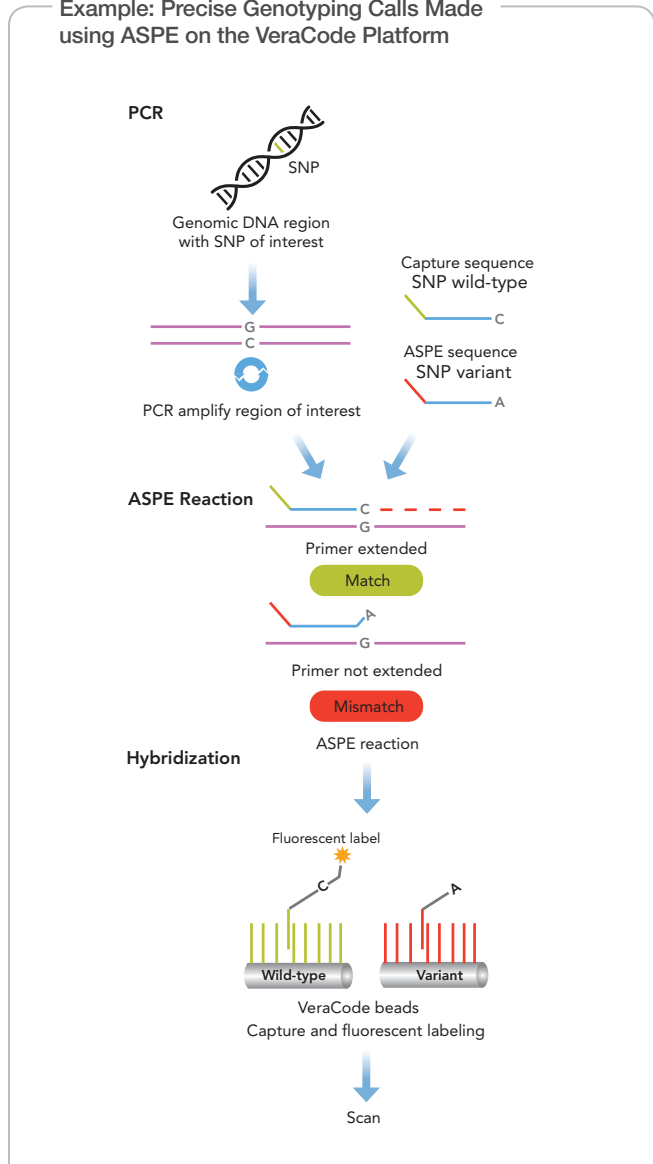
Amplicon Detail

Amplicon	Rank	AT Run	GC Run	GC%	Length	Variation
Allele 1	100.00	4	2	44	109	C
Allele 2	100.00	4	2	43	109	T

ePCR Submission

rs223201-R-598	Assay 0001	63.95
rs2030162-R-223	Assay 0001	63.60
rs743137-M-361	Assay 0001	66.85
rs1570964-V-473	Assay 0002	60.22
rs1397354-V-301	Assay 0005	65.81
rs649593-R-301	Assay 0001	62.02
rs1981635-S-98	Assay 0002	64.98
rs898249-M-301	Assay 0004	66.08

Example: Precise Genotyping Calls Made using ASPE on the VeraCode Platform



Each VeraCode Capture Bead contains a unique 23-mer oligonucleotide immobilized on its surface. Designing ASPE extension primers that include complementary sequences to these capture oligos allows exclusive targeting of specific beads. Primers that match the targeted sequence will extend preferentially. When a labeled target hybridizes with the complementary sequence on the assigned VeraCode microbead, the target is identified through the embedded holographic digital code.