

REPORT OF THE 58th UCLA INTERNATIONAL KIR EXCHANGE

MAY 8, 2024

KIR 249-254

For the 58th KIR Exchange, 6 DNA samples (KDNA#249 - 254) were shipped to 58 laboratories worldwide. KIR typing results were received from 57 of the laboratories. The results for the 58th KIR Exchange are summarized in Table 1 and individual laboratory results reported for each DNA sample are provided in Tables 2 - 7. Subtyping results for KIR2DS4 and 3DP1 are denoted as FULL or DEL. Discrepant results from consensus are

italicized in tables 1 - 7. Discrepancies at the allele level are not italicized.

We would like to acknowledge and thank centers 8047 and 8132 for providing allele level typing results for individual KIR genes, and encourage other labs to do so as well. We would also like to express our appreciation to Arnold, Azzaro, and Renac for sharing their predicated haplotypes for the samples examined in this study.

KDNA # 249: KIR2DL2-2DL4-2DL5B-3DL1-3DL2-3DL3-2DS1-2SD2-2DS4DEL-2DS5-3DP1FULL was the reported KIR genotype for this sample from a Caucasian donor. Only 2 discrepancies were observed for this sample in which 1 lab reported 2DL3 as positive and 1 lab reported 2DL4 as negative instead of positive.

Predicted haplotypes:
Renac - AB

KDNA # 250: KIR2DL1-2DL3-2DL4-2DL5A-3DL2-3DL3-3DS1-2DS1-2DS5-2DP1-3DP1DEL was the reported KIR genotype for this sample from a Hispanic donor. Several discrepancies were reported for this sample. One lab reported 2DL1 as negative, 1 lab reported 2DL2 as positive, and 1 lab reported 3DL1 as positive instead of negative.

Predicted haplotypes
Arnold - AB and AB
Azzaro - Cen-A/Cen-A + Tel-B1/Tel-B1

KDNA # 251: KIR2DL1-2LD2-2DL4-2DL5A&B-3DL1-3DL2-3DL3-3DS1-2DS1-2DS2-2DS3-2DS4FULL-2DP1-3DP1FULL&DEL was the reported KIR type for this sample from a Caucasian donor. A number of discrepancies were reported for this sample. Two labs reported KIR2DL5 as negative and 5 labs reported 2DL3 as positive. One lab reporting KIR2DL3 as positive, noted the amplification for 2DL3 was weak.

Predicted haplotypes

Azzaro - Cen-B1/Cen-B2 + Tel-A/Tel-B2

Renac - AB

KDNA # 252: KIR2DL1-2DL2-2DL3?-2DL4-2DL5B-3DL1-3DL2-3DL3-2DS2-2DS4FULL&DEL-2DS5-2DP1-3DP1FULL&DEL was the reported KIR genotype for this sample from an African American donor. No agreement was achieved for the reporting of KIR2DL3 in this sample; 33 labs (57%) reported 2DL3 as absent and 25 labs (43%) reported the gene was present. KIR2DL3 was not included in the grading analysis as a result. Gen-dzekhadze kindly shared their findings for KIR2DL3, noting they observed a discrepancy in test results between method types in which the gene was positive by qPCR and negative by SSP/SSO.

Predicted haplotypes

Azzaro - Cen-A/Cen-B2 + Tel-A/Tel-A

Renac - AB

KDNA # 253: KIR2DL1-2DL3-2DL4-2DL5A-3DL1-3DL2-3DL3-3DS1-2DS1-2DS4DEL-2DS5-2DP1-3DP1DEL was the reported KIR genotype for this sample from an African American donor. Only a single discrepancy was observed for this sample, in which 1 lab reported 2DL2 as positive instead of negative.

Predicted haplotypes:

Arnold - A and AB

Azzaro - Cen-A/Cen-A + Tel-A/Tel-B1

Renac - AB

KDNA # 254: KIR2DL2-2DL4-3DL1-3DL2-3DL3-2DS2-2DS4FUL&DEL-3DP1FULL was the reported KIR genotype for this sample from a Hispanic donor. Two labs reported KIR2DL3 as positive instead of negative.

Predicted haplotypes

Arnold - BA1 and BA1

Azzaro - Cen-B2/Cen-B2 + Tel-A/Tel-A

Renac - AB

NEXT MAILING DATE: July 31, 2024

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Table 1. Summary of the 58th KIR Exchange (KDNA #249-254)

| KIR Ex. | DNA | # Labs | 2DL1 | 2DL2 | 2DL3 | 2DL4 | 2DL5 | 3DL1 | 3DL2 | 3DL3 | 3DS1 | 2DS1 | 2DS2 | 2DS3 | 2DS4 | 2DS5 | 2DP1 | 3DP1 | |
|---------|-----|--------|---|--|--------------------|--|---|--|--|---|---|--|---|---|--|--|---|--|--|
| #58 | 249 | 57 | NEG[57] | POS[55] *00101+00101[1] *0010102, 0010102[1] | NEG[56] POS[1] | POS[53] *00801[1] *0080101, 0080101[1] DEL[1] NEG[1] | POS[45] B[11] B*0020103[1] | POS[55] *00101/ *095[1] *0010109[1] | POS[55] *001/*006/ *100/*116+ *007*010[1] *0010102, *0070102[1] | POS[55] *00301+ *02802[1] *02802, *0030103[1] | NEG[57] | POS[55] NEW/ *00201[1] NT[1] | POS[56] *0010102, *0010102 NEW[1] | NEG[57] | POS[38] DEL[16] *0030102/ *0030103[1] NEG[1] NT[1] | POS[55] *00201[1] *0020132[1] | NEG[55] NT[2] | POS[44] FULL[10] *001/*00302/ *004/*00901[1] *001,*0030201 [1] NT[1] | |
| | 250 | 58 | NEG[1] | POS[55] *0020103, *0030225[1] *001/002+ *003/034/ *071/074[1] | NEG[57] POS[1] | POS[56] *0010101, *0020103[1] *00101+ *00201[1] | POS[55] *0050101[1] *00501+ *00501[1] NORM[1] | POS[48] A[9] A*0010101, *0010103[1] | NEG[57] POS[1] | POS[56] *00708, 0070102[1] *007+*007[1] | POS[56] *0130113, *0130127[1] *01301/ *107+ *0101+ *01301/ *107[1] | POS[56] *00210, *0010101[1] *00101+ *02010[1] NT[1] | POS[56] *00201+ *00201[1] NT[1] | NEG[58] | NEG[58] | NEG[57] NT[1] | POS[56] *00201+ *00201[1] *00201[1] NT[2] | POS[55] *00301+ *00301[1] NT[2] | POS[44] DEL[11] *0030202, *0060101[1] NORM[1] NT[1] |
| | 251 | 58 | POS[56] *0040101[1] *00401/ 035[1] | POS[56] *0010102, *0010102[1], *00101+ *00101[1] | NEG[53] POS[5] | POS[55] NORM[1] *0010304, *0050101[1] *00103+ *00501[1] | POS[47] A,B[6] B[1] A[1] A*0050101, B*0020107[1] NEG[2] | POS[56] *0200101/ 0200102/ 0200103[1] | POS[56] *00902, *0070103[1] *001/007/ *010+009/ *019/*112[1] | POS[56] *036, *140205[1] *01402/ *092+*036[1] | POS[56] *0130101[1] *01301/ *107[1] | POS[56] NEW/ *00201[1] NT[1] | POS[57] *0010105 *0010124[1] | POS[55] Ambiguous[1] *0010313, *0010103[1] *017[1] FULL, DEL[1] NT[1] | POS[42] FULL[12] NORM[1] *00101/ *01102/ *017[1] FULL, DEL[1] NT[1] | NEG[58] | POS[55] *0010201/ *0010202/ *0010203[1] NT[2] | POS[44] FULL, DEL[11] *001, *0030101[1] *001/*00302/ *004/*00901+ *00301[1] NT[1] | |
| | 252 | 58 | POS[56] *01201[1] *1201[1] | POS[56] *00301+ *00602[1] *00602, *0030101[1] | POS[25] NEG[33] | POS[55] NEW/ *00102+ *00103/ *00501[1] *0010201, *0050101[1] NORM[1] | POS[45] B[12] B*00805[1] | POS[57] *0020103, *0070101[1] | POS[56] *00201/ *00202/ *101/ *102+*028[1] *028, *0020101[1] | POS[56] *01406+ *036[1] *036, *1406[1] | NEG[58] | NEG[55] POS[2] POS[2] NT[1] | POS[56] *00101/ *002*022[1] NEG[1] | NEG[58] | POS[40] FULL, DEL[14] *00101/ *017+*013[1] NORM[1] FULL[1] NT[1] | POS[57] *009[1] *0060101[1] NT[2] | POS[55] *009[1] NT[2] | POS[45] FULL, DEL[11] *0030201, *0090101[1] NT[1] | |

Table 1. Summary of the 58th KIR Exchange (KDNA #249-254)

| KIR Ex. | DNA | # Labs | 2DL1 | 2DL2 | 2DL3 | 2DL4 | 2DL5 | 3DL1 | 3DL2 | 3DL3 | 3DS1 | 2DS1 | 2DS2 | 2DS3 | 2DS4 | 2DS5 | 2DP1 | 3DP1 |
|---------|-----|--------|---|---|---|--|--|--|------|--|---------------------------|--|-------------------------------|----------------|--|--|--|---|
| #58 | 253 | 58 | POS[56] *00301/ *00302/ *034/*071/ *074+ *025[1] *025, *0030220[1] | NEG[57] <i>POS[1]</i> | POS[57] *0010101, *0010102[1] | POS[55] *00103/ *NEW+ *00801/ *013[1] NORM DEL[1] POS[48] A[9] A*015[1] | POS[56] *00101/ *095[1] *0010103[1] | POS[57] *056, *0010101[1] | | POS[56] *00901/ *8081+ *800901/ *081[1] *0090101, *0090102[1] | POS[56] *014[2] | POS[56] *008[1] NT[1] | NEG[58] | NEG[58] | POS[38] DEL[17] *0030101[1] <i>NEG[1]</i> NT[1] | POS[56] *00802[1] *00501[1] | POS[54] *00201+ *00201[1] <i>NEG[1]</i> NT[2] | POS[44] DEL[11] NORM[1] *0030202, *0030205[1] NT[1] |
| | 254 | 58 | NEG[58] *00301+ *00301[1] *0030101[1] | POS[56] *00301+ *00301[1] NEG[56] <i>POS[2]</i> | POS[55] NORM / *DEL[1] *00102+ *00801[1] *0010201, *0080101[1] | POS[58] | POS[56] *00101/ *095+ *01502/ *01702[1] *0010106, *0150204[1] | POS[57] *01101, *0020105[1] | | POS[56] *01403+ *02801[1] *1403, *02801[1] | NEG[58] | NEG[56] <i>POS[1]</i> NT[1] | POS[57] *0010108[1] | NEG[58] | POS[43] FULL, DEL[14] NT[1] | NEG[58] | NEG[56] NT[2] | POS[45] FULL[11] *001NEW, 007[1] NT[1] |

[] - number of labs reporting allele assignment/POS/NEG/NT
 POS - Presence of gene
 NEG - Absence of gene
 NT - Not typed; NR - Not reported/No result
 italics - assignment different from consensus
 Subtypes of 2DS4 and 3DP1 are designated as FULL and/or DEL

Methods
 NGS - Next-generation sequencing
 RT-PCR - Real-time PCR
 SSO - Sequence-specific oligonucleotide probe based typing
 SSP - Sequence-specific primer-based typing
 SBT - Sequencing-based typing

| Table 2. KDNA #249 (Caucasian) | | | | | | | | | | | | | | | | | |
|--------------------------------|---------|---------|---------|---------|-------------------|-----------------|---------------------------------------|-------------------|---------|----------------|---------|---------|-----------------------|---------|---------|-------------------------------------|---------|
| CTR | 2DL1 | 2DL2 | 2DL3 | 2DL4 | 2DL5 | 3DL1 | 3DL2 | 3DL3 | 3DS1 | 2DS1 | 2DS2 | 2DS3 | 2DS4 | 2DS5 | 2DP1 | 3DP1 | Method |
| | NEG[57] | POS[57] | NEG[56] | POS[56] | POS[45]+ B[12] | POS[57] | POS[57] | POS[57] | NEG[57] | POS[56] | POS[57] | NEG[57] | POS[39]+ DEL[16] | POS[57] | NEG[55] | POS[46]+ FULL[10] | |
| 124 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NT | NT | SSP |
| 187 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSO |
| 713 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | RT-PCR |
| 733 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSP NGS |
| 762 | NEG | POS | NEG | POS | B | POS | POS | POS | NEG | POS | POS | NEG | DEL | POS | NEG | FULL | SSP |
| 792 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSP |
| 1108 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | DEL | POS | NEG | POS | SSO |
| 1426 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | DEL | POS | NEG | FULL | SSP SSO |
| 1466 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | RT-PCR |
| 1694 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSP |
| 3224 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSO |
| 3410 | NEG | POS | NEG | POS | B | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSP |
| 3519 | NEG | POS | NEG | POS | B | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSP |
| 3753 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSO |
| 3798 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSO |
| 3966 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | RT-PCR |
| 4021 | NEG | POS | POS | POS | B | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSP |
| 4251 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSO |
| 4337 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSP |
| 4345 | NEG | POS | NEG | NEG | POS | POS | POS | POS | NEG | POS | POS | NEG | NEG | POS | NEG | POS | SSP |
| 5000 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSO |
| 5133 | NEG | POS | NEG | POS | B | POS | POS | POS | NEG | POS | POS | NEG | DEL | POS | NEG | FULL | RT-PCR |
| 5142 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | DEL | POS | NEG | FULL | SSP |
| 5219 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSO |
| 5282 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSP |
| 5462 | NEG | POS | NEG | POS | B | POS | POS | POS | NEG | POS | POS | NEG | DEL | POS | NEG | FULL | SSP |
| 5488 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSO |
| 8030 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSO |
| 8047 | NEG | *00101+ | NEG | *00801 | POS | *00101/ *095 | *001/*006/ *100/*116+ *007/*010 | *00301+ *02802 | NEG | NEW/ *00201 | POS | NEG | *0030102/ *0030103 | *00201 | NEG | *001/ *00302/ *004/ *00901 | NGS |
| 8050 | NEG | POS | NEG | POS | B | POS | POS | POS | NEG | POS | POS | NEG | DEL | POS | NEG | FULL | SSP |
| 8053 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | DEL | POS | NEG | FULL | SSO |
| 8060 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | RT-PCR |
| 8069 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | DEL | POS | NEG | POS | SSO |
| 8071 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSO |
| 8073 | NEG | POS | NEG | POS | B | POS | POS | POS | NEG | POS | POS | NEG | DEL | POS | NEG | FULL | RT-PCR |
| 8074 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | DEL | POS | NEG | POS | SSO |
| 8079 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSO |
| 8080 | NEG | POS | NEG | POS | B | POS | POS | POS | NEG | POS | POS | NEG | DEL | POS | NEG | FULL | SSP |
| | | | | | | | | | | | | | | | | | RT-PCR |

| Table 2. KDNA #249 (Caucasian) | | | | | | | | | | | | | | | | | |
|---------------------------------------|------|-----------------------|------|-----------------------|-----------|----------|-----------------------|---------------------|------|------|------------------------------|------|----------------------|----------|------|-------------------|---------|
| CTR | 2DL1 | 2DL2 | 2DL3 | 2DL4 | 2DL5 | 3DL1 | 3DL2 | 3DL3 | 3DS1 | 2DS1 | 2DS2 | 2DS3 | 2DS4 | 2DS5 | 2DP1 | 3DP1 | Method |
| 8083 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSO |
| 8084 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | RT-PCR |
| 8085 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | NGS |
| 8086 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSP |
| 8090 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSP SSO |
| 8092 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | RT-PCR |
| 8098 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | ALL EX.4 DEL EX.5 | POS | NEG | POS | SSO |
| 8104 | NT | | | | | | | | | | | | | | | | SSP |
| 8105 | NEG | POS | NEG | POS | B | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | NGS |
| 8110 | NEG | POS | NEG | POS | B | POS | POS | POS | NEG | POS | POS | NEG | DEL | POS | NEG | FULL | RT-PCR |
| 8118 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | RT-PCR |
| 8122 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | RT-PCR |
| 8124 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSP SSO |
| 8127 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | RT-PCR |
| 8129 | NEG | POS | NEG | DEL | POS | POS | POS | POS | NEG | POS | POS | NEG | DEL | POS | NEG | POS | SSP |
| 8130 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | NGS |
| 8132 | NEG | *0010102, *0010102 | NEG | *0080101, *0080101 | B*0020103 | *0010109 | *0010102, *0070102 | *02802, *0030103 | NEG | NT | *0010102, *0010102 NEW | NEG | NT | *0020132 | NT | *001, *0030201 | NGS |
| 8134 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | DEL | POS | NEG | POS | SSO |
| 8135 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSO |
| 8136 | NEG | POS | NEG | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | NEG | POS | SSO |

Table 3. KDNA #250 (Hispanic)

| CTR | 2DL1 | 2DL2 | 2DL3 | 2DL4 | 2DL5 | 3DL1 | 3DL2 | 3DL3 | 3DS1 | 2DS1 | 2DS2 | 2DS3 | 2DS4 | 2DS5 | 2DP1 | 3DP1 | Method |
|------|---|---------|-------------------|-------------------|-------------------|---------|------------|-------------------|-------------------------------------|-------------------|---------|---------|---------|-------------------|-------------------|---------------------|-------------------|
| | POS[57] | NEG[57] | POS[58] | POS[58] | POS[48]+ A[10] | NEG[57] | POS[58]\ | POS[56] | POS[56] | POS[57] | NEG[58] | NEG[58] | NEG[57] | POS[58] | POS[56] | POS[45]+ DEL[12] | |
| 124 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | NT | NT | SSP |
| 187 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 713 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | RT-PCR |
| 733 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSP NGS |
| 762 | POS | NEG | POS | POS | A | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | DEL | SSP |
| 792 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSP |
| 1108 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 1426 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | DEL | SSP SSO RT-PCR |
| 1466 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | RT-PCR |
| 1694 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSP |
| 3224 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 3410 | POS | NEG | POS | POS | A | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSP |
| 3519 | POS | NEG | POS | POS | A | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSP |
| 3753 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 3798 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 3966 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | RT-PCR |
| 4021 | POS | NEG | POS | POS | A | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSP |
| 4251 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 4337 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSP |
| 4345 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSP |
| 5000 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 5133 | POS | NEG | POS | POS | A,B? | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | DEL | RT-PCR |
| 5142 | POS | POS | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | DEL | SSP |
| 5219 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 5282 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSP |
| 5462 | POS | NEG | POS | POS | A | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | DEL | SSP |
| 5488 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 8030 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 8047 | *001/ *002+ *003/*034/ *071/*074 | NEG | *00101+ *00201 | *00501+ *00501 | POS | NEG | *007+ *007 | *00101+ *00210 | *01301/ *107+ *01301/ *107 | *00201+ *00201 | NEG | NEG | NEG | *00201+ *00201 | *00301+ *00301 | POS | NGS |
| 8050 | POS | NEG | POS | POS | A | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | DEL | SSP |
| 8053 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | DEL | SSO RT-PCR |
| 8060 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | |
| 8069 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 8071 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 8073 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | DEL | RT-PCR |
| 8074 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 8079 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 8080 | POS | NEG | POS | POS | A | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | DEL | SSP RT-PCR |

Table 3. KDNA #250 (Hispanic)

| CTR | 2DL1 | 2DL2 | 2DL3 | 2DL4 | 2DL5 | 3DL1 | 3DL2 | 3DL3 | 3DS1 | 2DS1 | 2DS2 | 2DS3 | 2DS4 | 2DS5 | 2DP1 | 3DP1 | Method |
|------|-----------------------|------|-----------------------|----------|------------------------|------|---------------------|---------------------|-----------------------|------|------|------|------|----------|------|-----------------------|---------|
| 8083 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 8084 | NEG | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | RT-PCR |
| 8085 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | NGS |
| 8086 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSP |
| 8090 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSP SSO |
| 8092 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | RT-PCR |
| 8098 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 8104 | POS | NEG | POS | POS | A | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | DEL | SSP |
| 8105 | POS | NEG | POS | POS | A | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | NGS |
| 8110 | POS | NEG | POS | POS | A,B? | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | DEL | RT-PCR |
| 8118 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | RT-PCR |
| 8122 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | RT-PCR |
| 8124 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSP SSO |
| 8127 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | RT-PCR |
| 8129 | POS | NEG | POS | NORM | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | NORM | SSP |
| 8130 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | NGS |
| 8132 | *0020103, *0030225 | NEG | *0010101, *0020103 | *0050101 | A*0010101, *0010103 | NEG | *00708, *0070102 | *00210, *0010101 | *0130113, *0130127 | NT | NEG | NEG | NT | *0020113 | NT | *0030202, *0060101 | NGS |
| 8134 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 8135 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |
| 8136 | POS | NEG | POS | POS | POS | NEG | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSO |

| Table 4. KDNA #251 (Caucasian) | | | | | | | | | | | | | | | | | |
|--------------------------------|-----------------|-------------------|---------|-------------------|--------------------|------------------------------------|---------------------------------------|--------------------------|-----------------|-----------------|---------|----------------------------|----------------------------|---------|------------------------------------|--|---------|
| CTR | 2DL1 | 2DL2 | 2DL3 | 2DL4 | 2DL5 | 3DL1 | 3DL2 | 3DL3 | 3DS1 | 2DS1 | 2DS2 | 2DS3 | 2DS4 | 2DS5 | 2DP1 | 3DP1 | Method |
| | POS[58] | POS[58] | NEG[53] | POS[58] | POS[49]+ A,B[7] | POS[58] | POS[58] | POS[58] | POS[58] | POS[57] | POS[58] | POS[58] | POS[43]+ FULL[14] | NEG[58] | POS[56] | POS[44]+ FULL, DEL[13] | |
| 124 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NT | NT | SSP |
| 187 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSO |
| 713 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | RT-PCR |
| 733 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSP NGS |
| 762 | POS | POS | NEG | POS | A,B | POS | POS | POS | POS | POS | POS | POS | FULL | NEG | POS | FULL,DEL | SSP |
| 792 | POS | POS | NEG | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSP |
| 1108 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS- FULL | NEG | POS | POS | SSO |
| 1426 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | FULL | NEG | POS | FULL,DEL | SSP SSO |
| 1466 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | RT-PCR |
| 1694 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSP |
| 3224 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSO |
| 3410 | POS | POS | POS | POS | B | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSP |
| 3519 | POS | POS | NEG | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSP |
| 3753 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSO |
| 3798 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSO |
| 3966 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | RT-PCR |
| 4021 | POS | POS | POS | POS | A,B | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSP |
| 4251 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSO |
| 4337 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSP |
| 4345 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSP |
| 5000 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSO |
| 5133 | POS | POS | NEG | POS | A,B? | POS | POS | POS | POS | POS | POS | POS | FULL | NEG | POS | FULL,DEL | RT-PCR |
| 5142 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | FULL | NEG | POS | FULL,DEL | SSP |
| 5219 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSO |
| 5282 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSP |
| 5462 | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | FULL,DEL | SSP |
| 5488 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSO |
| 8030 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSO |
| 8047 | *00401/ *035 | *00101+ *00101 | NEG | *00103+ *00501 | POS | *0200101/ *0200102/ *0200103 | *001/*007/ *010+*009/ *019/*112 | *01402/ *092+ *036 | *01301/ *107 | *NEW/ *00201 | POS | *00103/ *007+ *00201 | *00101/ *01102/ *017 | NEG | *0010201/ *0010202/ *0010203 | *001/ *00302/ *004/ *00901+ *00301 | NGS |
| 8050 | POS | POS | NEG | POS | A,B | POS | POS | POS | POS | POS | POS | POS | FULL | NEG | POS | FULL,DEL | SSP |
| 8053 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | FULL,DEL | SSO |
| 8060 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | RT-PCR |
| 8069 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | FULL | NEG | POS | POS | SSO |
| 8071 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSO |
| 8073 | POS | POS | NEG | POS | A, B | POS | POS | POS | POS | POS | POS | POS | FULL DEL | NEG | POS | FULL DEL | RT-PCR |

| Table 4. KDNA #251 (Caucasian) | | | | | | | | | | | | | | | | | | |
|---------------------------------------|----------|----------------------|------|-----------------------|-------------------------|----------|--------------------|------------------|----------|------|------|-----------------------|----------------------------|------|------|------|-------------------|------------|
| CTR | 2DL1 | 2DL2 | 2DL3 | 2DL4 | 2DL5 | 3DL1 | 3DL2 | 3DL3 | 3DS1 | 2DS1 | 2DS2 | 2DS3 | 2DS4 | 2DS5 | 2DP1 | 3DP1 | Method | |
| 8074 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | FULL | NEG | POS | POS | SSO |
| 8079 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSO |
| 8080 | POS | POS | NEG | POS | A | POS | POS | POS | POS | POS | POS | POS | POS | FULL | NEG | POS | FULL,DEL | SSP RT-PCR |
| 8083 | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSO |
| 8084 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | Ambiguous | POS | NEG | POS | POS | POS | RT-PCR |
| 8085 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | POS | NGS |
| 8086 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | POS | SSP |
| 8090 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | POS | SSP SSO |
| 8092 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | POS | RT-PCR |
| | | | | | | | | | | | | | ALL EX.4 FULL LENGTH | | | | | |
| 8098 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | EX.5 | NEG | POS | POS | SSO |
| 8104 | POS | POS | NEG | POS | A,B | POS | POS | POS | POS | POS | POS | POS | POS | FULL | NEG | POS | FULL,DEL | SSP |
| 8105 | POS | POS | NEG | POS | A,B | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | NGS |
| 8110 | POS | POS | NEG | POS | A,B? | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | FULL,DEL | RT-PCR |
| 8118 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | RT-PCR |
| 8122 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | RT-PCR |
| 8124 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSP SSO |
| 8127 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | RT-PCR |
| 8129 | POS | POS | NEG | NORM | POS | POS | POS | POS | POS | POS | POS | POS | POS | NORM | NEG | POS | POS | SSP |
| 8130 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | NGS |
| 8132 | *0040101 | *0010102, 0010102 | NEG | *0010304, *0050101 | A*0050101, B*0020107 | *0200103 | *00902 ,0070103 | *036, *140205 | *0130101 | NT | | *0010105, *0010124 | *0010313, 0010103 | NT | NEG | NT | *001, *0030101 | NGS |
| 8134 | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | FULL | NEG | POS | POS | SSO |
| 8135 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSO |
| 8136 | POS | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | SSO |

Table 5. KDNA #252 (Black)

| CTR | 2DL1 | 2DL2 | 2DL3 | 2DL4 | 2DL5 | 3DL1 | 3DL2 | 3DL3 | 3DS1 | 2DS1 | 2DS2 | 2DS3 | 2DS4 | 2DS5 | 2DP1 | 3DP1 | Method |
|------|---------|-------------------|--------------------|--------------------------------------|-------------------|---------|--|-----------------|---------|---------|----------------------|---------|------------------------------|---------|---------|------------------------------|-------------------|
| | POS[58] | POS[58] | POS[25] NEG[33] | POS[58] | POS[45]+ B[13] | POS[58] | POS[58] | POS[58] | NEG[58] | NEG[55] | POS[57] | NEG[58] | POS[42]+ FULL, DEL[15] | POS[58] | POS[56] | POS[45]+ FULL, DEL[12] | |
| 124 | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | NT | NT | SSP |
| 187 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSO |
| 713 | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | RT-PCR |
| 733 | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSP NGS |
| 762 | POS | POS | POS | POS | B | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | POS | POS | FULL,DEL | SSP |
| 792 | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | POS | POS | SSP |
| 1108 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | POS | POS | POS | SSO |
| 1426 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | POS | POS | FULL,DEL | SSP SSO RT-PCR |
| 1466 | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | RT-PCR |
| 1694 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSP |
| 3224 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSO |
| 3410 | POS | POS | POS | POS | B | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSP |
| 3519 | POS | POS | POS | POS | B | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSP |
| 3753 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSO |
| 3798 | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSO |
| 3966 | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | RT-PCR |
| 4021 | POS | POS | POS | POS | B | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSP |
| 4251 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSO |
| 4337 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSP |
| 4345 | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSP |
| 5000 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSO |
| 5133 | POS | POS | POS | POS | B | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | POS | POS | FULL,DEL | RT-PCR |
| 5142 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | POS | POS | FULL,DEL | SSP |
| 5219 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSO |
| 5282 | POS | POS | POS | POS | POS | POS | POS | POS | NEG | POS | POS | NEG | POS | POS | POS | POS | SSP |
| 5462 | POS | POS | POS | POS | B | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | POS | POS | FULL,DEL | SSP |
| 5488 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSO |
| 8030 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSO |
| 8047 | *01201 | *00301+ *00602 | NEG | NEW/ *00102+ *00103/ *00501 | POS | POS | *00201/ *00202/ *101/ *102+*028 | *01406+ *036 | NEG | NEG | *00101/ *002/*022 | NEG | *00101/ *017+*013 | POS | *009 | POS | NGS |
| 8050 | POS | POS | POS | POS | B | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | POS | POS | FULL,DEL | SSP |
| 8053 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | POS | POS | FULL,DEL | SSO RT-PCR |
| 8060 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | |
| 8069 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | POS | POS | POS | SSO |
| 8071 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSO |
| 8073 | POS | POS | POS | POS | B | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | POS | POS | FULL,DEL | RT-PCR |
| 8074 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | FULL | POS | POS | POS | SSO |
| 8079 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSO |

Table 5. KDNA #252 (Black)

| CTR | 2DL1 | 2DL2 | 2DL3 | 2DL4 | 2DL5 | 3DL1 | 3DL2 | 3DL3 | 3DS1 | 2DS1 | 2DS2 | 2DS3 | 2DS4 | 2DS5 | 2DP1 | 3DP1 | Method |
|------|-------|---------------------|------|-----------------------|---------|-----------------------|-------------------|----------------|------|------|------|------|----------|----------|------|-----------------------|---------------|
| 8080 | POS | POS | POS | POS | B | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | POS | POS | FULL,DEL | SSP RT-PCR |
| 8083 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSO |
| 8084 | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | RT-PCR |
| 8085 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | NGS |
| 8086 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSP |
| 8090 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSP SSO |
| 8092 | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | RT-PCR |
| 8098 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSO |
| 8104 | POS | POS | POS | POS | B | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | POS | POS | FULL,DEL | SSP |
| 8105 | POS | POS | NEG | POS | B | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | NGS |
| 8110 | POS | POS | POS | POS | B | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | POS | POS | FULL,DEL | RT-PCR |
| 8118 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | RT-PCR |
| 8122 | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | RT-PCR |
| 8124 | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSP SSO |
| 8127 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | RT-PCR |
| 8129 | POS | POS | POS | NORM | POS | POS | POS | POS | NEG | NEG | POS | NEG | NORM | POS | POS | POS | SSP |
| 8130 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | NGS |
| 8132 | *1201 | *00602, *0030101 | NEG | *0010201, *0050101 | B*00805 | *0020103, *0070101 | *028, *0020101 | *036, *1406 | NEG | NT | NEG | NEG | NT | *0060101 | NT | *0030201, *0090101 | NGS |
| 8134 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | POS | POS | POS | SSO |
| 8135 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSO |
| 8136 | POS | POS | NEG | POS | POS | POS | POS | POS | NEG | NEG | POS | NEG | POS | POS | POS | POS | SSO |

Table 6. KDNA #253 (Black)

| CTR | 2DL1 | 2DL2 | 2DL3 | 2DL4 | 2DL5 | 3DL1 | 3DL2 | 3DL3 | 3DS1 | 2DS1 | 2DS2 | 2DS3 | 2DS4 | 2DS5 | 2DP1 | 3DP1 | Method |
|------|---|---------|---------|---------|------------------------------------|-----------------|---------|---------|---------|---------|---------|---------|---------------------|---------|---------|---------------------|---------|
| | POS[58] | NEG[57] | POS[58] | POS[58] | POS[48]+ A[10] | POS[58] | POS[58] | POS[58] | POS[58] | POS[57] | NEG[58] | NEG[58] | POS[38]+ DEL[18] | POS[58] | POS[55] | POS[45]+ DEL[12] | |
| 124 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | NT | NT | SSP |
| 187 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSO |
| 713 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | RT-PCR |
| 733 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSP NGS |
| 762 | POS | NEG | POS | POS | A | POS | POS | POS | POS | POS | NEG | NEG | DEL | POS | POS | DEL | SSP |
| 792 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSP |
| 1108 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | DEL | POS | POS | POS | SSO |
| 1426 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | DEL | POS | POS | DEL | SSP SSO |
| 1466 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | RT-PCR |
| 1694 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSP |
| 3224 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSO |
| 3410 | POS | NEG | POS | POS | A | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSP |
| 3519 | POS | NEG | POS | POS | A | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSP |
| 3753 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSO |
| 3798 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSO |
| 3966 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | RT-PCR |
| 4021 | POS | NEG | POS | POS | A | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSP |
| 4251 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSO |
| 4337 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSP |
| 4345 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | NEG | POS | POS | POS | SSP |
| 5000 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSO |
| 5133 | POS | NEG | POS | POS | A,B? | POS | POS | POS | POS | POS | NEG | NEG | DEL | POS | POS | DEL | RT-PCR |
| 5142 | POS | POS | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | DEL | POS | POS | DEL | SSP |
| 5219 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSO |
| 5282 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSP |
| 5462 | POS | NEG | POS | POS | A | POS | POS | POS | POS | POS | NEG | NEG | DEL | POS | POS | DEL | SSP |
| 5488 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSO |
| 8030 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSO |
| 8047 | *00301/ *00302/ *034/*071/ *074+*025 | NEG | POS | | *00103/ NEW+ *00801/ *013 | | | | | | | | | | | | NGS |
| 8050 | POS | NEG | POS | POS | A | *00101/ *095 | POS | POS | POS | POS | NEG | NEG | *0030101 | *0802 | *00201 | POS | SSP |
| 8053 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | DEL | POS | POS | DEL | SSO |
| 8060 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | RT-PCR |
| 8069 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | DEL | POS | POS | POS | SSO |
| 8071 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSO |
| 8073 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | DEL | POS | POS | DEL | RT-PCR |
| 8074 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | DEL | POS | POS | POS | SSO |
| 8079 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSO |
| 8080 | POS | NEG | POS | POS | A | POS | POS | POS | POS | POS | NEG | NEG | DEL | POS | POS | DEL | SSP |
| | | | | | | | | | | | | | | | | | RT-PCR |

Table 6. KDNA #253 (Black)

| CTR | 2DL1 | 2DL2 | 2DL3 | 2DL4 | 2DL5 | 3DL1 | 3DL2 | 3DL3 | 3DS1 | 2DS1 | 2DS2 | 2DS3 | 2DS4 | 2DS5 | 2DP1 | 3DP1 | Method |
|------|-------------------|------|-----------------------|-----------------------|-------|----------|-------------------|-----------------------|------|------|------|------|----------------------|--------|------|-----------------------|---------|
| 8083 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSO |
| 8084 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | RT-PCR |
| 8085 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | NGS |
| 8086 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSP |
| 8090 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSP SSO |
| 8092 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | RT-PCR |
| 8098 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | ALL EX.4 DEL EX.5 | POS | POS | POS | SSO |
| 8104 | POS | NEG | POS | POS | A | POS | POS | POS | POS | POS | NEG | NEG | DEL | POS | POS | DEL | SSP |
| 8105 | POS | NEG | POS | POS | A | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | NGS |
| 8110 | POS | NEG | POS | POS | A,B? | POS | POS | POS | POS | POS | NEG | NEG | DEL | POS | POS | DEL | RT-PCR |
| 8118 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | RT-PCR |
| 8122 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | RT-PCR |
| 8124 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSP SSO |
| 8127 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | RT-PCR |
| 8129 | POS | NEG | POS | NORM / DEL | POS | POS | POS | POS | POS | POS | NEG | NEG | DEL | POS | NEG | NORM | SSP |
| 8130 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | NGS |
| 8132 | *025, *0030220 | NEG | *0010101, *0010102 | *0010308, *0080101 | A*015 | *0010103 | *056, *0010101 | *0090101, *0090102 | *014 | NT | NEG | NEG | NT | *00501 | NT | *0030202, *0030205 | NGS |
| 8134 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | DEL | POS | POS | POS | SSO |
| 8135 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSO |
| 8136 | POS | NEG | POS | POS | POS | POS | POS | POS | POS | POS | NEG | NEG | POS | POS | POS | POS | SSO |

Table 7. KDNA #254 (Hispanic)

| CTR | 2DL1 | 2DL2 | 2DL3 | 2DL4 | 2DL5 | 3DL1 | 3DL2 | 3DL3 | 3DS1 | 2DS1 | 2DS2 | 2DS3 | 2DS4 | 2DS5 | 2DP1 | 3DP1 | Method |
|------|---------|---------|---------|---------|---------|---------------------------------------|---------|---------|---------|---------|---------|---------|------------------------------|---------|---------|----------------------|---------|
| | NEG[58] | POS[58] | NEG[56] | POS[58] | NEG[58] | POS[58] | POS[58] | POS[58] | NEG[58] | NEG[56] | POS[58] | NEG[58] | POS[43]+ FULL, DEL[14] | NEG[58] | NEG[56] | POS[45]+ FULL[13] | |
| 124 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NT | NT | SSP |
| 187 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSO |
| 713 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | RT-PCR |
| 733 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSP NGS |
| 762 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | FULL | SSP |
| 792 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSP |
| 1108 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | NEG | NEG | POS | SSO |
| | | | | | | | | | | | | | | | | | SSP SSO |
| 1426 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | NEG | NEG | FULL | RT-PCR |
| 1466 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | RT-PCR |
| 1694 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSP |
| 3224 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSO |
| 3410 | NEG | POS | POS | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSP |
| 3519 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSP |
| 3753 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSO |
| 3798 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSO |
| 3966 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | RT-PCR |
| 4021 | NEG | POS | POS | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSP |
| 4251 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSO |
| 4337 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSP |
| 4345 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSP |
| 5000 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSO |
| 5133 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | NEG | NEG | FULL | RT-PCR |
| 5142 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | POS | POS | NEG | FULL,DEL | NEG | NEG | FULL | SSP |
| 5219 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSO |
| 5282 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSP |
| 5462 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | NEG | NEG | FULL | SSP |
| 5488 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSO |
| 8030 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSO |
| | | | | | | | | | | | | | | | | | |
| 8047 | NEG | *00301+ | NEG | *00102+ | NEG | *00101/ *095+ *01502/ *01702 | POS | *01403+ | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | NGS |
| 8050 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | NEG | NEG | FULL | SSP |
| | | | | | | | | | | | | | | | | | SSO |
| 8053 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | FULL | RT-PCR |
| 8060 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | |
| 8069 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | NEG | NEG | POS | SSO |
| 8071 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSO |
| 8073 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | NEG | NEG | FULL | RT-PCR |
| 8074 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | NEG | NEG | POS | SSO |
| 8079 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSO |

Table 7. KDNA #254 (Hispanic)

| CTR | 2DL1 | 2DL2 | 2DL3 | 2DL4 | 2DL5 | 3DL1 | 3DL2 | 3DL3 | 3DS1 | 2DS1 | 2DS2 | 2DS3 | 2DS4 | 2DS5 | 2DP1 | 3DP1 | Method |
|------|------|----------|------|----------------------|------|-----------------------|---------------------|------------------|------|------|----------|------|---------------|------|------|------------------|---------------|
| 8080 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | NEG | NEG | FULL | SSP RT-PCR |
| 8083 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSO |
| 8084 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | RT-PCR |
| 8085 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | NGS |
| 8086 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSP |
| 8090 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSP SSO |
| 8092 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | RT-PCR |
| 8098 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSO |
| 8104 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | NEG | NEG | FULL | SSP |
| 8105 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | NGS |
| 8110 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | NEG | NEG | FULL | RT-PCR |
| 8118 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | RT-PCR |
| 8122 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | RT-PCR |
| 8124 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSP SSO |
| 8127 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | RT-PCR |
| 8129 | NEG | POS | NEG | NORM / DEL | NEG | POS | POS | POS | NEG | NEG | POS | NEG | NORM / DEL | NEG | NEG | POS | SSP |
| 8130 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | NGS |
| 8132 | NEG | *0030101 | NEG | *0010201, 0080101 | NEG | *0010106, *0150204 | *01101, *0020105 | *1403, *02801 | NEG | NT | *0010108 | NEG | NT | NEG | NT | *001NEW, *007 | NGS |
| 8134 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | FULL,DEL | NEG | NEG | POS | SSO |
| 8135 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSO |
| 8136 | NEG | POS | NEG | POS | NEG | POS | POS | POS | NEG | NEG | POS | NEG | POS | NEG | NEG | POS | SSO |

Table 8. Participating Centers

| Director Last Name | Director First | Honor | Institution | City | State | Country |
|--------------------|------------------|-------------|---|------------------------|-------|---------------------------|
| Alexander Keck | Dr Rainer Frank/ | | inno-train Diagnostik GmbH | Kronberg | | Germany |
| Alquist | Caroline | Dr | Hoxworth Blood Center | Cincinnati | OH | |
| An | Lin | | Shanghai Tissuebank Medical Laboratory | Shanghai | | China |
| Arnold | Paula | PhD | St Jude Children's Research Hosp | Memphis | TN | |
| Azzaro | Maria | Dr.ssa | AOU "Policlinico-Vitt. Emanuele" | Catania | | Italy |
| Baj-Krzyworzeka | Monika | | Uniwersytecki Szpital Dziecięcy w Krakowie | Krakow | | Poland |
| Bengtsson | Mats | MD | Uppsala University Hospital | Uppsala | | Sweden |
| Berka | Noureddine | Dr | American National Red Cross | Philadelphia | PA | |
| Bettinotti | Maria | PhD | Johns Hopkins University | Baltimore | MD | |
| Blasczyk | Rainer | Prof Dr | Transplantationsimmunologie OE 8350 | Hannover | | Germany |
| Blouin | Amanda | MD, PhD | Memorial Sloan Kettering Cancer Center | New York | NY | |
| Cereb | Nezih | MD | HistoGenetics | Ossining | NY | |
| Chan | Marieta | Dr | Health Sciences Authority | | | Singapore |
| Chang | Yenhui | Dr | TBG Biotechnology Corp. | New Taipei City | | Taiwan, Province Of China |
| Chen | Dongfeng | PhD | Duke University Health System | Durham | NC | |
| Chung | Yeun-Jun | Prof | The Catholic University of Korea College of Med | Seoul | | Republic of Korea |
| Dambaeva | Svetlana | Dr | Rosalind Franklin University | North Chicago | IL | |
| Daniel | Dolly | Prof Dr | Christian Medical College & Hospital | Vellore, Tamil Nadu | | India |
| D'Orsogna | Lloyd | Dr | Fiona Stanley Hospital | Murdoch | | Australia |
| Fernandez-Vina | Marcelo | PhD | Stanford Blood Center | Palo Alto | CA | |
| Fischer | Gottfried | Dr | AKH-Blood Group Serology & Transfusion Medicine | Vienna | | Austria |
| Fuessel | Monika | PhD | DKMS Life Science Lab gGmbH | Dresden | | Germany |
| Furst | Daniel | PD Dr med | IKT Und Immunogenetik Ulm | Ulm, Baden-Wurttemberg | | Germany |
| Gandhi | Manish J. | MD | Mayo Clinic | Rochester | MN | |
| Gendzekhadze | Ketevan | PhD | City of Hope Medical Center | Duarte | CA | |
| Girnita | Alin | Dr | UCI Medical Center | Orange | CA | |
| Guan | Qingdong | Dr, F(ACHI) | Cancer Care Manitoba | Winnipeg | MB | Canada |
| He | Jun | | First Affiliated Hospital of Soochow University | Suzhou, Jiangsu | | China |
| Hirv | Kaimo | | MVZ Martinsried GmbH | Martinsried | | Germany |
| Kashi | Zahra | Dr | Kashi Clinical Laboratories | Portland | OR | |
| Koester | Ruth | PhD | LabCorp | Burlington | NC | |
| Kwok | Janette | Dr | Queen Mary Hospital | | | Hong Kong |

Table 8. Participating Centers

| Director Last Name | Director First | Honor | Institution | City | State | Country |
|---------------------------|-----------------------|--------------|---|--------------------|--------------|----------------|
| Lalli | Peter | Dr | Health Network Laboratories | Allentown | PA | |
| Marsh | Steven GE | Prof | Anthony Nolan | London | | United Kingdom |
| Monos | Dimitri | PhD | Children's Hospital of Philadelphia | Philadelphia | PA | |
| Morris | Gerald | MD, PhD | UCSD | San Diego | CA | |
| Nikaein | Afzal | PhD, HCLD | Texas Medical Specialty, Inc. | Dallas | TX | |
| Pan | Jianhua | | Guangzhou KingMed Center for Clinical Lab. Co.,Ltd. | Kwun Tong, Kowloon | | Hong Kong |
| Pando Rigal | Marcelo | PhD | Baylor University Medical Center | Dallas | TX | |
| Penning | Maarten | PhD | Genome Diagnostics B.V. (GenDx) | Utrecht | | Netherlands |
| Pereira | Shalini | Dr | Scisco Genetics, Inc. | Seattle | WA | |
| Permpikul | Parichart | Capt | Mahidol University | Bangkok | | Thailand |
| Philogene | Mary Carmelle | PhD, F(ACHI) | VCU Health Systems | Richmond | VA | |
| Pollack | Marilyn S. | PhD | UCSF Benioff Children's Hospital-Oakland | Oakland | CA | |
| Poulton | Kay | Dr | Manchester Royal Infirmary | Manchester | | United Kingdom |
| Raja | Rajalingam | PhD | University of California San Francisco | San Francisco | CA | |
| Reed | Elaine F. | PhD | UCLA Immunogenetics Center | Los Angeles | CA | |
| Renac | Virginie | MD | Etablissement Francais du Sang Bretagne | Rennes Cedex | | France |
| Rossi | Angela | Dr | Ospedale Guglielmo Da Saliceto | Piacenza | | Italy |
| Sachsenberg | Nicolas | Dr | BAG Diagnostics GmbH | Lich, Hesse | | Germany |
| Schiller | Jennifer | PhD | Versiti Wisconsin, Inc. | Milwaukee | WI | |
| Tan | Aiguo | | Beijing BoFuRui Medical Laboratory Co. Ltd. | Beijing | | China |
| Tan | Aiguo | | Guangzhou BoFuRui Medical Laboratory, Co. Ltd. | Guangzhou | | China |
| Thiel | Jennifer | | Werfen (Immucor GTI-Diagnostics) | Waukesha | WI | |
| Ward | William | PhD, F(ACHI) | National Institutes of Health | Bethesda | MD | |
| Yu | Neng | Dr | UMass Memorial Medical Center | Dedham | MA | |
| Yu | Neng | MD | American Red Cross | Worcester | MA | |
| Zhang | Xiaohai | PhD | Cedars-Sinai Medical Center | Los Angeles | CA | |