

REPORT OF THE 46th UCLA INTERNATIONAL KIR EXCHANGE

JULY 17, 2018

KIR 181-184

For the 46th KIR Exchange, 4 DNA samples (KDNA#181 - 184) were shipped to 74 laboratories worldwide. KIR typing results were received from 69 of the laboratories.

The results for the 46th KIR Exchange are summarized in Table 1 and individual laboratory results reported for each DNA sample are provided in Tables 2 - 5. Subtyping results for 2DL4, 2DL5, 3DL1, 2DS1, 2DS3, 2DS4, and 3DP1 loci were reported by some laboratories. The subtypes for 2DS4 and 3DP1 are denoted as FULL or DEL. Good agreement was achieved overall among laboratories in the positive/negative assignments for all 4

DNA samples, as 13 tested KIR loci (KIR2DL1, 2DL2, 2DL4, 2DL5, 3DL1, 3DL2, 3DL3, 2DS1, 2DS3, 2DS4, 2DS5, 2DP1, 3DP1) were reported without discrepancy. Discrepant results from consensus are italicized in Tables 1 - 5 and described in the summation for each sample. Discrepancies at the allele level are not italicized.

We would like to thank and acknowledge Arnold, Bottino, Hurley & Hartzman, and Rombola for submitting predicted haplotypes for each of the samples examined in this study.

KIR Exchange Sample: KDNA # 181:

The consensus KIR type for this donor of unknown ethnicity is KIR2DL2-2DL4-2DL5B-3DL1-3DL2-3DL3-2DS1-2DS2-2DS4DEL-2DS5-3DP1FULL. Two discrepancies were observed for this sample, as 1 lab reported it as positive for 2DL3 and another reported it as positive for 3DS1. Predicted haplotypes for this sample were reported as cB02/cB02 and tA01/tB01. Several labs (Arnold, Hurley & Hartzman, and Rombola) noted this sample has having an unusual haplotype, in which 3DS1 is absent. Furthermore, Bottino and Vilches noted 1 haplotype possibly has a deletion of the central region (2DS3-2DP1-2DL1-3DP1-2DL4-3DS1-2DL5). The genotype in this sample is observed in Persians (0.4%) and Cook Island natives (2%) (1, 2).

KIR Exchange Sample: KDNA # 182:

The consensus KIR type for this sample from a donor of unknown ethnicity is KIR2DL1-2DL3-2DL4-2DL5A-3DL1-3DL2-3DL3-3DS1-2DS1-2DS3-2DS4DEL-2DP1-3DP1DEL. This samples was previously typed as KIR sample 51 (2007). In this retyping, only a single discrepancy was observed, as 1 lab reported 2DL3 as negative instead of positive. This is an improvement from the 2017 typing, in which 3 discrepancies were reported for this sample. Predicted haplotypes were reported as cA01/cA01 and tA01/tB01. The genotype in this sample is observed across all populations, with the highest frequency observed among the American Native Yuca (37.7%) and Warao (29%) tribes (3).

KIR Exchange Sample: KDNA # 183:

The consensus KIR type for this sample from a Filipino donor is KIR2DL1-2DL3-2DL4-2DL5A-3DL1-3DL2-3DL3-3DS1-2DS3-2DS4DEL-2DP1-3DP1. As with sample 182, only 1 discrepancy was observed in this sample, as 1 lab reported 2DL3 as negative instead of positive. Predicted haplotypes were reported as cA01/cA01 and tA01/tB01. The genotype in this sample is found among Samoan (10%), Tokelau (8.5%), and Cook Island populations of Southeast Asia (1).

KIR Exchange Sample: KDNA # 184:

The consensus KIR type for this sample from a Hispanic donor is 2DL1-2DL2-2DL3-2DL4-2DL5A-3DL1-3DL2-3DL3-3DS1-2DS1-2DS2-2DS4FULL-2DS5-2DP1-3DP1FULL&DEL. One lab reported this sample as negative for 2DL3, 1 reported it as negative for 3DS1, and 1 reported it as negative for 2DS2. Predicted haplotypes for this sample were reported as cA01/cB01 or cA01/cB02 and tA01/tB01. The genotype in this sample is observed in Mexican Mestizo (1.2%) and Mexican Huichol (8.2%) populations (3,4).

References:

1. Ashouri E, Farjadian S, Reed EF, et al. KIR gene content diversity in four Iranian populations. *Immunogenetics*. 2009;61:483-492.
2. Velickovic M, Velickovic Z, Dunckley H. Diversity of killer cell immunoglobulin-like receptor genes in Pacific Islands populations. *Immunogenetics*. 2006;58:523-532.
3. Gutiérrez-Rodríguez, ME, Sandoval-Ramírez L, Díaz-Flores M, et al. KIR gene in ethnic and Mestizo populations from Mexico. *Hum Immunol*. 2006;67(1-2):85-93.
4. Alvarado-Hernández, D.L., Hernández-Ramírez, D., Noyola, D.E. et al. KIR gene diversity in Mexican mestizos of San Luis Potosi. *Immunogenetics*. 2011;63:561-575.

NEXT MAILING DATE: August 8, 2018

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Table 1. Summary of the 46th KIR Exchange (KDNA #181-184)

KIR Ex.	DNA	# Labs	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1
46	181	69	NEG[69]	POS[69]	NEG[68] <i>POS[1]</i>	POS[66] *007[1] NT[2]	POS[52] B[16] B*0020101/ *0020105[1]	POS[69]	POS[68] NT[1]	POS[67] NT[2]	NEG[68] <i>POS[1]</i>	POS[67] *002[1] *002-*008[1]	POS[69]	NEG[69]	POS[45] DEL[23] *003[1]	POS[69]	NEG[68] NT[1]	POS[49] FULL[15] *001/011[1] Variant[1] NT[3]
	182	69	POS[69]	NEG[69]	POS[68] <i>NEG[1]</i>	POS[67] NT[2]	POS[54] A[13] A*001/ *0050101[1] AB[1]	POS[68] *001[1]	POS[68] NT[1]	POS[67] NT[2]	POS[69]	POS[67] *002-*008[1] *002[1]	NEG[69]	POS[68] *001-004/ *006-007[1]	POS[44] DEL[24] *003[1]	NEG[69]	POS[68] NT[1]	POS[47] DEL[18] *003[1] NT[3]
	183	69	POS[69]	NEG[69]	POS[68] <i>NEG[1]</i>	POS[67] NT[2]	POS[54] A[23] A*0050103/ *0050104[1] AB[1]	POS[68] *001[1]	POS[68] NT[1]	POS[67] NT[2]	POS[69]	POS[67] *002[1] *002-*008[1]	NEG[69]	POS[68] *001-004/ *006-007[1]	POS[44] DEL[24] *003[1]	NEG[69]	POS[68] NT[1]	POS[47] DEL[18] *003[1] NT[3]
	184	69	POS[69]	POS[69]	POS[68] <i>NEG[1]</i>	POS[67] NT[2]	POS[54] A[13] A*001/ *0050101[1] AB[1]	POS[68] *001[1]	POS[68] NT[1]	POS[67] NT[2]	POS[68] <i>NEG[1]</i>	POS[67] *002[1] *002-*008[1]	POS[67] <i>NEG[1]</i>	NEG[69]	POS[44] FULL[24] *001[1]	POS[69]	POS[68] NT[1]	POS[54] FULL, DEL[12] NT[3]

KEY for Table 1
 [] - number of labs reporting allele assignment/POS/NEG/NT
 POS - Presence of gene
 NEG - Absence of gene
 NT - Not typed
 italics - assignment different from consensus
 Subtypes of 2DS4 and 3DP1 are designated as FULL and/or DEL

KEY for Tables 2-5
 italics - assignment different from consensus
 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. KIR Exchange Sample: KDNA #181 (Unknown)																	
CTR	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	NEG[69]	POS[69]	NEG[68]	POS[67]	POS[52]+ B[17]	POS[69]	POS[68]	POS[67]	NEG[68]	POS[69]	POS[69]	NEG[69]	POS[45]+ DEL[24]	POS[69]	NEG[68]	POS[49]+ FULL[16]	
189	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	
278	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	
705	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	SSO
725	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSO
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	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 RT-PCR
1466	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
1647	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
1778	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP SSO
2344	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSO
2549	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	SSP SSO
3410	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	POS	SSP
3632	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	FULL	SSP
3753	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP SSO
3798	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP SSO
3966	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
4021	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	
4251	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSO RT-PCR
4337	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
4985	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
5000	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP 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	POS	POS	NEG	POS	SSP
5282	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
5451	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSO
5462	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	*002- *008	POS	NEG	DEL	POS	NEG	FULL	SSP RT-PCR
5488	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	FULL	SSP SSO
8022	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	FULL	SSP
8023	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	FULL	SSP
8024	NEG	POS	NEG	NT	POS	POS	NT	NT	NEG	POS	POS	NEG	DEL	POS	NEG	NT	SSP
8025	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	NT	SSP
8028	NEG	POS	NEG	NT	POS	POS	POS	NT	NEG	POS	POS	NEG	POS	POS	NT	NT	SSP
8030	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSO
8035	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSO
8038	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	POS	SSO
8046	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	VARIANT	SSP
8047	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP

Table 2. KIR Exchange Sample: KDNA #181 (Unknown)

CTR	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
8050	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	FULL	SSP
8053	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	FULL	SSO RT-PCR
8060	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSO
8069	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	FULL	SSP
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	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	POS	SSP SSO
8076	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
8079	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSO
8080	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP RT-PCR
8083	NEG	POS	POS	*007	B	POS	POS	POS	NEG	*002	POS	NEG	*003	POS	NEG	*001/ *011	SSP
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	
8086	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
8088	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
8091	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
8092	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSO
8094	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	
8095	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	SSO
8097	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
8101	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	FULL	SSP
8102	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
8104	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	FULL	SSP
8105	NEG	POS	NEG	POS	B*0020101/ *0020105	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	NGS
8106	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	FULL	SSP
8110	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	FULL	RT-PCR

Table 3. KIR Exchange Sample: KDNA #182 (Unknown)

CTR	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	POS[69]	NEG[69]	POS[68]	POS[67]	POS[54] A[14]	POS[69]	POS[68]	POS[67]	POS[69]	POS[69]	NEG[69]	POS[69]	POS[44]+ DEL[25]	NEG[69]	POS[68]	POS[47]+ DEL[19]	
189	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	
278	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	
705	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
713	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
725	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
733	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP NGS
762	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
1108	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	POS	SSO
1426	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP RT-PCR
1466	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
1647	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	RT-PCR
1694	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
1778	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP SSO
2344	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
2549	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
3224	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP SSO
3410	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
3632	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
3753	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP SSO
3798	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP SSO
3966	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
4021	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	
4251	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO RT-PCR
4337	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
4985	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
5000	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP SSO
5133	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	RT-PCR
5142	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
5282	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
5451	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
5462	POS	NEG	POS	POS	A	POS	POS	POS	POS	*002- *008	NEG	POS	DEL	NEG	POS	DEL	SSP RT-PCR
5488	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP SSO
8022	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
8023	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
8024	POS	NEG	POS	NT	POS	POS	NT	NT	POS	POS	NEG	POS	DEL	NEG	POS	NT	SSP
8025	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	NT	SSP
8028	POS	NEG	POS	NT	POS	POS	POS	NT	POS	POS	NEG	POS	POS	NEG	NT	NT	SSP
8030	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
8035	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
8038	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	POS	SSO
8046	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	POS	SSP
8047	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP

Table 3. KIR Exchange Sample: KDNA #182 (Unknown)

CTR	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
8050	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
8053	POS	NEG	POS	POS	AB	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSO RT-PCR
8060	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
8069	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
8071	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
8073	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	RT-PCR
8074	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	POS	SSP SSO
8076	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8079	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
8080	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP RT-PCR
8083	POS	NEG	POS	POS	A	*001	POS	POS	POS	*002	NEG	POS	*003	NEG	POS	*003	SSP
8084	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	RT-PCR
8085	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	
8086	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8088	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8090	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP SSO
8091	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8092	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
8094	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	
8095	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
8097	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8101	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	*001-004/ *006-007	DEL	NEG	POS	DEL	SSP
8102	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8104	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
8105	POS	NEG	POS	POS	A*001/ *0050101	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NGS
8106	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
8110	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	RT-PCR

Table 4. KIR Exchange Sample: KDNA #183 (Filipino)

CTR	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	POS[69]	NEG[69]	POS[68]	POS[67]	POS[54]+ A[24]	POS[69]	POS[68]	POS[67]	POS[69]	POS[69]	NEG[69]	POS[69]	POS[44]+ DEL[23]	NEG[69]	POS[68]	POS[47]+ DEL[19]	
189	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	
278	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	
705	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
713	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
725	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
733	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP NGS
762	POS	NEG	POS	POS	A POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
1108	POS	NEG	NEG	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	POS	SSO
1426	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP RT-PCR
1466	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
1647	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	RT-PCR
1694	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
1778	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP SSO
2344	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
2549	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
3224	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP SSO
3410	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
3632	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
3753	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP SSO
3798	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP SSO
3966	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
4021	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	
4251	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO RT-PCR
4337	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
4985	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
5000	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP SSO
5133	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	RT-PCR
5142	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
5282	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
5451	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
5462	POS	NEG	POS	POS	A	POS	POS	POS	POS	*002- *008	NEG	POS	DEL	NEG	POS	DEL	SSP RT-PCR
5488	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP SSO
8022	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
8023	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
8024	POS	NEG	POS	NT	POS	POS	NT	NT	POS	POS	NEG	POS	DEL	NEG	POS	NT	SSP
8025	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	NT	SSP
8028	POS	NEG	POS	NT	POS	POS	POS	NT	POS	POS	NEG	POS	POS	NEG	NT	NT	SSP
8030	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
8035	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
8038	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	POS	SSO
8046	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	POS	SSP
8047	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP

Table 4. KIR Exchange Sample: KDNA #183 (Filipino)

CTR	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
8050	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
8053	POS	NEG	POS	POS	AB	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSO RT-PCR
8060	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
8069	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
8071	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
8073	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	RT-PCR
8074	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	POS	SSP SSO
8076	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8079	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
8080	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP RT-PCR
8083	POS	NEG	POS	POS	A	*001	POS	POS	POS	*002	NEG	POS	*003	NEG	POS	*003	SSP
8084	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	RT-PCR
8085	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	
8086	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8088	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8090	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP SSO
8091	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8092	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
8094	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	
8095	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSO
8097	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8101	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	*001-004/ *006-007	DEL	NEG	POS	DEL	SSP
8102	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8104	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
8105	POS	NEG	POS	POS	A*0050103/ *0050104	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NGS
8106	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
8110	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	RT-PCR

Table 5. KIR Exchange Sample: KDNA #184 (Hispanic)

CTR	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	POS[69]	POS[69]	POS[68]	POS[67]	POS[54]+ A[14]	POS[69]	POS[68]	POS[67]	POS[68]	POS[69]	POS[67]	NEG[69]	POS[44]+ FULL[25]	POS[69]	POS[68]	POS[54]+ FULL, DEL[12]	
189	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	
278	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	
705	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSO
713	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSO
725	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSO
733	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP NGS
762	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	POS	SSP
1108	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	POS	SSO
1426	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	FULL, DEL	SSP RT-PCR
1466	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP
1647	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	RT-PCR
1694	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP
1778	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	POS	SSP SSO
2344	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSO
2549	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP
3224	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP SSO
3410	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	POS	SSP
3632	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	FULL, DEL	SSP
3753	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP SSO
3798	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP SSO
3966	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	SSP
4021	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	
4251	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSO RT-PCR
4337	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP
4985	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP
5000	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP SSO
5133	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	FULL, DEL	RT-PCR
5142	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP
5282	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP
5451	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSO
5462	POS	POS	POS	POS	A	POS	POS	POS	POS	*002- *008	POS	NEG	FULL	POS	POS	FULL, DEL	SSP RT-PCR
5488	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	POS	SSP SSO
8022	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	FULL, DEL	SSP
8023	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	FULL, DEL	SSP
8024	POS	POS	POS	NT	POS	POS	NT	NT	POS	POS		NEG	FULL	POS	POS	NT	SSP
8025	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	NT	SSP
8028	POS	POS	POS	NT	POS	POS	POS	NT	POS	POS	POS	NEG	POS	POS	NT	NT	SSP
8030	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSO
8035	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
8038	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	POS	SSO
8046	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	POS	SSP
8047	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP

Table 5. KIR Exchange Sample: KDNA #184 (Hispanic)

CTR	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
8050	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	FULL, DEL	SSP
8053	POS	POS	POS	POS	AB	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	POS	SSO RT-PCR
8060	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSO
8069	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	FULL, DEL	SSP
8071	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSO
8073	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	FULL, DEL	RT-PCR
8074	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	POS	SSP SSO
8076	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP
8079	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSO
8080	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP RT-PCR
8083	POS	POS	POS	POS	A	*001	POS	POS	POS	*002	POS	NEG	*001	POS	POS	POS	SSP
8084	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	RT-PCR
8085	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	
8086	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP
8088	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP
8090	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP SSO
8091	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP
8092	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSO
8094	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	
8095	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSO
8097	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP
8101	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	POS	SSP
8102	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	SSP
8104	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	FULL, DEL	SSP
8105	POS	POS	POS	POS	*001/ *0050101	POS	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	NGS
8106	POS	POS	POS	POS	A	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	FULL, DEL	SSP
8110	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	FULL	POS	POS	FULL, DEL	RT-PCR

Table 6. Participating Centers

Name			City	State	Country	Name			City	State	Country
Adams	Sharon		Bethesda	MD		Kanangat	Siva	PhD	Chicago	IL	
Ameen	Reem	Dr	Jabriya		Kuwait	Kashi	Zahra M.	Dr	Portland	OR	
Arnold	Paula	PhD	Memphis	TN		Kim	Tai-Gyu	Prof	Seoul		S. Korea
Askar	Medhat	Dr	Dallas	TX		Kimball	Pam	Dr	Richmond	VA	
Barber	Kathryn		Waukesha	WI		Kwok	Janette	Dr			Hong Kong
Bengtsson	Mats	MD	Uppsala		Sweden	Lardy	N.M.	Dr	Amsterdam		Netherlands
Bettinotti	Maria	PhD	Baltimore	MD		Lee	Jar-How	Dr	Woodland Hills	CA	
Bittencourt	Vanessa Zaiatz		Dublin		Ireland	Liu	Cong	PhD	Grand Rapids	MI	
Bottino	Cristina	Prof	Genoa		Italy	Maha	George	PhD	Burlington	NC	
Cao	Kai	Dr	Houston	TX		Marsh	Steven	Prof	London		United Kingdom
Carrington	Martin &	Drs	Frederick	MD		Meunier	Marie-Christine	PhD	Montreal, Quebec		Canada
Cauwelier	Barbara	Dr	Brugge		Belgium	Monos	Dimitrios	PhD	Philadelphia	PA	
Cereb	Nezih		Ossining	NY		Morris	Gerald	MD, PhD	San Diego		
Charlton	Ronald	PhD	Winnipeg	MB	Canada	Murphey	Cathi	PhD	San Antonio	TX	
Chen	Dong-Feng	PhD	Durham	NC		Mytilineos	Joannis	MD	Ulm		Germany
Colombe	Beth W.	PhD	Philadelphia	PA		Nikaein	Afzal	PhD	Dallas	TX	
Dajiang	Cao		Beijing		China	Pereira	Shalini		Seattle	WA	
denHollander	Neal	Dr	Toronto, ON		Canada	Permpikul	Vejbaesya &	Drs	Bangkok		Thailand
D'Orsogna	Lloyd	Dr	Murdoch		Australia	Pollack	Marilyn S.	PhD	Oakland	CA	
Du	Keming		Shanghai		China	Poulton	Kay	Dr	Manchester		United Kingdom
Ellis	Thomas	Dr	Madison	WI		Raja	Rajalingam	PhD	San Francisco	CA	
Fagoaga	Omar	Dr	Detroit	MI		Reed	Elaine F.	PhD	Los Angeles	CA	
Fernandez-Vina	Marcelo	Dr	Palo Alto	CA		Rombola	Giovanni		Firenze		Italy
Fischer	Gottfried	Dr	Vienna		Austria	Rossi	Angela	Dr	Piacenza		Italy
Fossey	Sallyanne	PhD	Nashville	TN		Rost	Klein &	Drs	Martinsried		Germany
Freed	Brian	PhD	Aurora	CO		Ruiz	Phillip	MD, PhD	Miami	FL	
Fuessel	Monika	PhD	Dresden		Germany	Rybka	Jacek	PhD	Wroclaw		Poland
Gaitonde	Sujata	Dr	Chicago	IL		Schiller	Jennifer	PhD	Milwaukee	WI	
Gautreaux	Michael	Dr	Winston-Salem	NC		Seidl	Christian	Prof Dr	Frankfurt		Germany
Girnitá	Alin	Dr	Cincinnati	OH		Senitzer	David	PhD	Duarte	CA	
Graff	Ralph J	Dr	St Louis	MO		Sortino	Grazia	Dr	Catania	Italy	
He	Jun		Beijing	China		Tilanus	Marcel G.J.	Prof Dr	Maastricht		Netherlands
Hedlund	Anna		Stockholm		Sweden	Traherne	James	Dr	Cambridge		United Kingdom
Hesse	Nicole		Lich		Germany	Uhrberg	Markus	Dr	Dusseldorf		Germany
Hogan	patrick	Dr	Brisbane QLD		Australia	Vilches	Carlos	Dr	Majadahonda		Spain
Hsu	Susan H.	PhD	Dedham	MA		Yu	Neng	Dr	Worcester	MA	
Hsu	Susan H.	PhD	Philadelphia	PA		Zhang	Xiaohai	PhD	Los Angeles	CA	
Hurley	Hartzman&	Drs	Rockville	MD							