

REPORT OF THE 26TH UCLA INTERNATIONAL KIR EXCHANGE

DECEMBER 12, 2011

KIR 101-104

For the 26th KIR Exchange, 4 DNA samples (KDNA#101-104) were shipped to each laboratory on August 3, 2011. Sixty-two laboratories submitted their KIR typing results. The majority of the laboratories used either commercial or in-house developed sequence-specific primer (SSP) based PCR typing systems, and others used sequence-specific oligonucleotide probing (SSOP) method.

The results for the 26th 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 KIR2DL2, 2DL5, 3DL1, 3DS1, 2DS1, 2DS4, and 3DP1 loci were reported by some laboratories. The positive/negative

assignments for all 4 DNA samples were reported without any discrepancy for 11 of the 16 tested KIR loci (KIR2DL1, 2DL4, 2DL5, 3DL1, 3DL2, 3DL3, 3DS1, 2DS3, 2DS5, 2DP1, 3DP1). Discrepant results from the consensus typing are italicized in tables 1-5, and described in the summation for each sample. Discrepancies at the allele level are not italicized. We encourage the participating laboratories to resolve the discrepancies so that the information can be shared to develop reliable KIR typing systems.

We thank you for your continued participation in the UCLA KIR Exchange program.

KIR Exchange Sample: KDNA # 0101:

KDNA#101 was derived from a Filipino donor. The consensus KIR type of this sample is unique: 2DL1-2DL3-2DL4-2DL5A-3DL2-3DL3-3DS1-2DS1-2DS3-2DP1-3DP1. It was previously studied in 2006 as KDNA#38. In the 2006 study, two laboratories reported discrepant results for KIR2DL2. In this present study, 1 laboratory reported discrepant results for both KIR2DL2 and KIR2DS2. This KIR genotype occurs at low frequencies (1-2%) in Chinese Hans, Koreans, and Pacific Islanders (1, 2).

KIR Exchange Sample: KDNA # 0102:

This sample was obtained from a Black donor. The consensus KIR type for this sample is: 2DL1-2DL3-2DL4-2DL5B-3DL1-3DL2-3DL3-2DS4FULL-2DS5-2DP1-3DP1. This sample was previously typed in 2005 as KDNA#23. In the 2005 study, a number of discrepant results were reported for KIR2DL5 and KIR3DL2, with 5 laboratories reporting 2DL5new and 3 others reporting 2DL5A. Additionally, KIR3DL2 was reported as negative by over half of the participating laboratories (n=23). In the present retyping, KIR2DL5B was the reported subtype and the presence of 3DL2 was confirmed by all reporting laboratories (n=61). This KIR genotype occurs most frequently in African Americans (3.5%) (3).

KIR Exchange Sample: KDNA # 0103:

The ethnic origin of KDNA#103 is unknown. The consensus KIR type is: 2DL1-2DL3-2DL4-2DL5A-3DL1-3DL2-3DL3-3DS1-2DS1-2DS3-2DS4DEL-2DP1-3DP1. This sample was previously typed in 2006 as KDNA#44. In the 2006 study, 3 out of 49 (6%) laboratories using SSP reported this sample as negative for 2DS4. Interestingly in this present retyping, 5 out of 62 (8%) laboratories using various methods (SSP, SSOP, and RT-PCR) reported KIR2DS4 as negative. This is the third most common KIR genotype (~5 – 12%) found in Japanese, Korean, Chinese, and Pacific Islander (1, 2, 4, 5) populations.

KIR Exchange Sample: KDNA # 0104:

This sample was isolated from a Hispanic donor. All known 17 KIR genes are found in this sample: 2DL1-2DL2-2DL3-2DL4-2DL5A-2DL5B-3DL1-3DL2-3DL3-3DS1-2DS1-2DS2-2DS3-2DS4DEL-2DS5-2DP1-3DP1. One laboratory reported this DNA as negative for KIR2DL2 and another reported it as negative for KIR2DL3. This is a common KIR genotype found in Asian Indians, occurring at a frequency up to 23% (6). Although nearly 5% of Caucasians carry this genotype, it occurs rarely in Chinese, Japanese, and African populations (7).

References

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Table 1. Summary of the 26th KIR Exchange (KDNA#101-104)

KIR Ex.	DNA	# reporting labs	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1
#26	#0101	62	POS	NEG NT [1] <i>POS [1]</i>	POS	POS NT [1]	POS A [19] A*001/ *005 [3] A*005 [2]	NEG	POS NT [1]	POS NT [1]	POS *01301 [1]	POS *002-*004 [1]	NEG <i>POS [1]</i>	POS	NEG	NEG	POS NT [1]	POS *003 [11] DEL [8] *00301/ *00302 [1] NT [2]
	#0102	62	POS	NEG NT [1] <i>POS [1]</i>	POS	POS NT [1]	POS B [15] B*003-*006 [5] B*003 [1] B*003/ *004/ *006- *008/ *011/ *013 [1] B*003-*00602 [1] B*006 [1] <i>NEG [1]</i>	POS *01501 [2]	POS NT [1]	POS NT [1]	NEG	NEG	NEG <i>POS [1]</i>	NEG	POS FULL [14] *001/ *002 [9] *001 [4] *00101-*00103 [3] *0010101-*0010103/ *00102/ *002 [1]	POS	POS NT [1]	POS *003 [11] DEL [8] *00301/ *00302 [1] NT [2]
	#0103	62	POS	NEG NT [1] <i>POS [1]</i>	POS	POS NT [1]	POS A [20] A*001/ *005 [3] A*005 [2]	POS *007 [2]	POS NT [1]	POS NT [1]	POS *01301 [1]	POS *002- *004 [1] <i>NEG [1]</i>	NEG <i>POS [1]</i>	POS	POS DEL [15] *003/ *004/ *006/ *007 [5] *003-*007 [4] *00103/ *003/ *004/ *006- *009 [3] *003/ *004/ *006-*009 [2] *003/ *004/ *006 [1] *003/ *004/ *006/ *007/ *009 [1] <i>NEG [5]</i>	NEG	POS NT [1]	POS *003 [11] DEL [8] *00301/ *00302 [1] NT [2]
	#0104	62	POS	POS *001- *003/ *005 [2] NT [1] <i>NEG [1]</i>	POS <i>NEG [1]</i>	POS NT [1]	POS A, B [15] A*001, B*002 [1] A*001/*005, B*002/ *004/ *006/ *007 [1] A*001/ *005/ *012, B*002-*004/ *006- *011/ *013 [1]	POS *008	POS NT [1]	POS NT [1]	POS	POS *002- *004 [1]	POS	POS	POS DEL [15] *003/ *004/ *006/ *007 [5] *003-*007 [4] *00103/*003/ *004/ *006- *009 [3] *003/ *004/ *006 [1] *003/ *004/ *006-*009 [1] *003/ *004/ *006/ *007/ *009 [1] *003/ *006-*009 [1]	POS	POS NT [1]	POS *003 [11] DEL [8] *00301/ *00302 [1] NT [2]

KEY for Table

[] - number of labs reporting allele
 POS - Presence of gene
 NEG - Absence of gene
 NT - Not typed
italics - assignment different from consensus

KEY for Tables 2-5

italics - assignment different from consensus
 SSP - Sequence-specific priming-based typing
 SSOP - Sequence-specific oligonucleotide probing-based typing
 RSSOP - Reverse Sequence-specific oligonucleotide probing-based typing
 SBT - Sequencing-based typing

Table 2. KIR Exchange Sample: KDNA #101(Filipino)

CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
5488	Adams, Sharon	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	*003	SSP
16	Askar, Medhat	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP
8050	Baxter-Lowe, Lee	POS	NEG	POS	POS	A*001/ *005	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	*003	SSP
8025	Carrington&Marti	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	NT	SSP
785	Chan, Soh Ha	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	RT-PCR
3224	Chen, Dong-Feng	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP,SSOP
3632	Colombe, Beth	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	DEL	SSP
189	Crowe, Deborah	POS	NEG	POS	POS	A*001/ *005	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	*003	SSP
8031	Dinauer, David	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	DEL	SSP
3428	Eckels/Utah	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP,SSOP
4251	Ellis, Thomas	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP
8051	Endres, Robert	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	*003	SSP
2549	Fagoaga, Omar	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	DEL	SSP
8038	Fernandez-Vina&	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP
762	Fischer&Mayr	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	*003	SSP
8047	Fuessel, Monika	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP
8026	Gardiner, Clair M.	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP
8040	Gladman/Pellett/P	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP
234	Gomez, Carmen	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP
1694	Gottwald&Hesse	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP
4985	Graff, Ralph J.	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP
1461	Hidajat, M.	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	*003	SSP
5000	Hsu, Susan H.	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP,SSP
2344	Hurley&Hartzman	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP,SSOP
3261	Iwaki, Yui	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP
8035	Kanangat, Siva	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP, SSP
4337	Kim, Tai-Gyu	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP
8046	Kusnierczyk, Piot	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	MULTIPLEX SSP, SSP
8071	Kwok, Janette	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP
791	Lacelle, Chantale	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	*003	SSP
278	Lee, Jar-How	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP
1108	Linke, Robert	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP
8069	Maha, George	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	DEL	SSP
8067	Marino, Susan R.	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP,SSOP
5142	Marsh, Steven	POS	NEG	POS	POS	POS	NEG	POS	POS	*01301	POS	NEG	POS	NEG	NEG	POS	*003	SSP,SBT
733	Mytilineos, Joanni	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP
8039	Noreen, Harriet	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP
8022	Olerup SSP	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP
3966	Permpikul&Vejba	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP
8030	Poulton, Kay V.	POS	POS	POS	POS	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSOP
8057	Ray&Balazs	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP
3753	Reed&Rajalingam	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP,SSP
8064	Roberts, Chrissy	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	*003	WGA-SSP
8060	Rost&Klein	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP

Table 2. KIR Exchange Sample: KDNA #101(Filipino)

CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
3410	Schroeder,M.L.	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	*003	SSP
1426	Senitzer,David	POS	NEG	POS	POS	A*005	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	MULTIPLEX-SSP
769	Tavoularis,Sofia	POS	NEG	POS	POS	A*005	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP,SSP
230	Thoni,Deborah	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP
747	Tiercy,Jean-Marie	POS	NEG	POS	POS	A*001/ *005	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	*00301/ *00302	SSP
5451	Tilanus,Marcel	POS	NT	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP
4021	Trachtenberg,Eliz	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP
8024	Trowsdale,John	POS	NEG	POS	NT	POS	NEG	NT	NT	POS	POS	NEG	POS	NEG	NEG	POS	DEL	SSP
5462	Turner,E.V.	POS	NEG	POS	POS	A	NEG	POS	POS	POS	*002- *004	NEG	POS	NEG	NEG	POS	POS	SSP
8053	Tyan,Dolly	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	*003	SSP
8028	Uhrberg,Markus	POS	NEG	POS	NT	POS	NEG	POS	NT	POS	POS	NEG	POS	NEG	NEG	NT	NT	SSP
3775	Vidan-Jeras,Blan	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP
8023	Vilches,Carlos	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	DEL	SSP
705	Watkins,David I.	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP
124	Witt,Campbell	POS	NEG	POS	POS	POS	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	NT	NT	MULTIPLEX SSP
1466	Yu,Neng	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP,SSOP
5282	Yu,Neng	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	DEL	SSP
713	Zachary,Andrea	POS	NEG	POS	POS	A	NEG	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	DEL	SSP

Table 3. KIR Exchange Sample: KDNA #102(Black)

CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
5488	Adams, Sharon	POS	NEG	POS	POS	B	POS	POS	POS	NEG	NEG	NEG	NEG	*001/ *002	POS	POS	*003	SSP
16	Askar, Medhat	POS	NEG	POS	POS	B	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	POS	POS	POS	SSOP
8050	Baxter-Lowe, Lee	POS	NEG	POS	POS	B*003/ *006	POS	POS	POS	NEG	NEG	NEG	NEG	*001/ *002	POS	POS	*003	SSP
8025	Carrington&Marti	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	POS	POS	NT	SSP
785	Chan, Soh Ha	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	RT-PCR
3224	Chen, Dong-Feng	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP, SSOP
3632	Colombe, Beth	POS	NEG	POS	POS	B	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	POS	POS	DEL	SSP
189	Crowe, Deborah	POS	NEG	POS	POS	B*003/ *006	POS	POS	POS	NEG	NEG	NEG	NEG	*001/ *002	POS	POS	*003	SSP
8031	Dinauer, David	POS	NEG	POS	POS	B*003/ *00602	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	POS	POS	DEL	SSP
3428	Eckels/Utah	POS	NEG	POS	POS	B	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	POS	POS	POS	SSP, SSOP
4251	Ellis, Thomas	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSOP
8051	Endres, Robert	POS	NEG	POS	POS	B	POS	POS	POS	NEG	NEG	NEG	NEG	*001/ *002	POS	POS	*003	SSP
2549	Fagoaga, Omar	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	POS	POS	DEL	SSP
8038	Fernandez-Vina&	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	*001	POS	POS	POS	SSOP
762	Fischer&Mayr	POS	NEG	POS	POS	B	POS	POS	POS	NEG	NEG	NEG	NEG	*001/ *002	POS	POS	*003	SSP
8047	Fuessel, Monika	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP
8026	Gardiner, Clair M.	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP
8040	Gladman/Pellett/P	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP
234	Gomez, Carmen	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSOP
1694	Gottwald&Hesse	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP
4985	Graff, Ralph J.	POS	NEG	POS	POS	B	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP
1461	Hidajat, M.	POS	NEG	POS	POS	B*003/ *006	POS	POS	POS	NEG	NEG	NEG	NEG	*001/ *002	POS	POS	*003	SSP
5000	Hsu, Susan H.	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSOP, SSP
2344	Hurley&Hartzman	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP, SSOP
3261	Iwaki, Yui	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP
8035	Kanangat, Siva	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSOP, SSP
4337	Kim, Tai-Gyu	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP
8046	Kusnierczyk, Piot	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	POS	POS	POS	MULTIPLEX SSP, SSP
8071	Kwok, Janette	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSOP
791	Lacelle, Chantale	POS	NEG	POS	POS	B	POS	POS	POS	NEG	NEG	NEG	NEG	*001/ *002	POS	POS	*003	SSP
278	Lee, Jar-How	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSOP
1108	Linke, Robert	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	*00101- *00103	POS	POS	POS	SSOP
8069	Maha, George	POS	NEG	POS	POS	B	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	POS	POS	DEL	SSP
8067	Marino, Susan R.	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP, SSOP
5142	Marsh, Steven	POS	NEG	POS	POS	POS	*01501	POS	POS	NEG	NEG	NEG	NEG	*001	POS	POS	*003	SSP, SBT
733	Mytilineos, Joanni	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP
8039	Noreen, Harriet	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSOP
8022	Olerup SSP	POS	NEG	POS	POS	B	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP

Table 3. KIR Exchange Sample: KDNA #102(Black)

CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
3966	Permpikul&Vejba	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP
8030	Poulton,Kay V.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	NEG	POS	POS	POS	POS	SSOP
8057	Ray&Balazs	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	*00103	POS	POS	POS	SSOP
3753	Reed&Rajalingam	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSOP,SSP
8064	Roberts,Chrissy	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	*001	POS	POS	*003	WGA-SSP
8060	Rost&Klein	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSOP
3410	Schroeder,M.L.	POS	NEG	POS	POS	B*003	POS	POS	POS	NEG	NEG	NEG	NEG	*001/ *002	POS	POS	*003	SSP
1426	Senitzer,David	POS	NEG	POS	POS	B*006	*01501	POS	POS	NEG	NEG	NEG	NEG	FULL	POS	POS	POS	MULTIPLEX SSP
769	Tavoularis,Sofia	POS	NEG	POS	POS	B*003/ *004/ *006- *008/ *011/ *013	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	POS	POS	POS	SSOP,SSP
230	Thoni,Deborah	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSOP
747	Tiercy,Jean-Marie	POS	NEG	POS	POS	B*003/ *006	POS	POS	POS	NEG	NEG	NEG	NEG	*0010101- *0010103/ *00102/ *002	POS	POS	*00301/ *00302	SSP
5451	Tilanus,Marcel	POS	NT	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSOP
4021	Trachtenberg,Eliz	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP
8024	Trowsdale,John	POS	NEG	POS	NT	POS	POS	NT	NT	NEG	NEG	NEG	NEG	FULL	POS	POS	DEL	SSP
5462	Turner,E.V.	POS	NEG	POS	POS	B	POS	POS	POS	NEG	NEG	NEG	NEG	*001	POS	POS	POS	SSP
8053	Tyan,Dolly	POS	NEG	POS	POS	B	POS	POS	POS	NEG	NEG	NEG	NEG	*001/ *002	POS	POS	*003	SSP
8028	Uhrberg,Markus	POS	NEG	POS	NT	POS	POS	POS	NT	NEG	NEG	NEG	NEG	POS	POS	NT	NT	SSP
3775	Vidan-Jeras,Blan	POS	NEG	POS	POS	B	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	POS	SSP
8023	Vilches,Carlos	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	POS	DEL	SSP
705	Watkins,David I.	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	*00101- *00103	POS	POS	POS	SSOP
124	Witt,Campbell	POS	NEG	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	NEG	POS	POS	NT	NT	MULTIPLEX SSP
1466	Yu,Neng	POS	NEG	POS	POS	B	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	POS	POS	POS	SSP,SSOP
5282	Yu,Neng	POS	NEG	POS	POS	B	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	POS	POS	DEL	SSP
713	Zachary,Andrea	POS	NEG	POS	POS	B*003/ *006	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	POS	POS	DEL	SSP

Table 4. KIR Exchange Sample: KDNA #103

CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
5488	Adams,Sharon	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003-*007	NEG	POS	*003	SSP
16	Askar,Medhat	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	POS	SSOP
8050	Baxter-Lowe, Lee	POS	NEG	POS	POS	A*001/ *005	POS	POS	POS	POS	POS	NEG	POS	*003/ *004/ *006/ *007	NEG	POS	*003	SSP
8025	Carrington&Marti	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	NT	SSP
785	Chan,Soh Ha	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	RT-PCR
3224	Chen,Dong-Feng	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP,SSOP
3632	Colombe,Beth	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
189	Crowe,Deborah	POS	NEG	POS	POS	A*001/ *005	POS	POS	POS	POS	POS	NEG	POS	*003/ *004/ *006/ *007	NEG	POS	*003	SSP
8031	Dinauer,David	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
3428	Eckels/Utah	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	POS	SSP,SSOP
4251	Ellis,Thomas	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP
8051	Endres,Robert	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003/ *004/ *006/ *007	NEG	POS	*003	SSP
2549	Fagoaga,Omar	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
8038	Fernandez-Vina&	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	*003/ *004/ *006-*009	NEG	POS	POS	SSOP
762	Fischer&Mayr	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003-*007	NEG	POS	*003	SSP
8047	Fuessel,Monika	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8026	Gardiner,Clair M.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSP
8040	Gladman/Pellett/P	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
234	Gomez,Carmen	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP
1694	Gottwald&Hesse	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
4985	Graff,Ralph J.	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
1461	Hidajat,M.	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003-*007	NEG	POS	*003	SSP
5000	Hsu,Susan H.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP,SSP
2344	Hurley&Hartzman	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP, SSOP
3261	Iwaki, Yui	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8035	Kanangat,Siva	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP, SSP
4337	Kim,Tai-Gyu	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8046	Kusnierczyk,Piot	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	POS	MULTIPLEX SSP, SSP
8071	Kwok, Janette	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP
791	Lacelle,Chantale	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003/ *004/ *006/ *007	NEG	POS	*003	SSP
278	Lee, Jar-How	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	POS	SSOP
1108	Linke,Robert	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	*00103/ *003/ *004/ *006- *009	NEG	POS	POS	SSOP
8069	Maha,George	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
8067	Marino,Susan R.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP,SSOP
5142	Marsh,Steven	POS	NEG	POS	POS	POS	*007	POS	POS	*01301	POS	NEG	POS	*003/ *004/ *006/ *007/ *009	NEG	POS	*003	SSP,SBT
733	Mytilineos,Joanni	POS	NEG	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	NEG	POS	POS	SSP
8039	Noreen,Harriet	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP

Table 4. KIR Exchange Sample: KDNA #103

CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
8022	Olerup SSP	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
3966	Permpikul&Veiba	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8030	Poulton,Kay V.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	SSOP
8057	Ray&Balazs	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	*00103/ *003/ *004/ *006- *009	NEG	POS	POS	SSOP
3753	Reed&Rajalingam	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP,SSP
8064	Roberts,Chrissy	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	*003/ *004/ *006-*009	NEG	POS	*003	WGA-SSP
8060	Rost&Klein	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP
3410	Schroeder,M.L.	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003/ *004/ *006	NEG	POS	*003	SSP
1426	Senitzer,David	POS	NEG	POS	POS	A*005	*007	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	POS	MULTIPLEX SSP
769	Tavoularis,Sofia	POS	NEG	POS	POS	A*005	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	POS	SSOP,SSP
230	Thoni,Deborah	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP
747	Tiercy,Jean-Marie	POS	NEG	POS	POS	A*001/ *005	POS	POS	POS	POS	POS	NEG	POS	*003/ *004/ *006/ *007	NEG	POS	*00301/ *00302	SSP
5451	Tilanus,Marcel	POS	NT	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP
4021	Trachtenberg,Eliz	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8024	Trowsdale,John	POS	NEG	POS	NT	POS	POS	NT	NT	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
5462	Turner,E.V.	POS	NEG	POS	POS	A	POS	POS	POS	POS	*002- *004	NEG	POS	POS	NEG	POS	POS	SSP
8053	Tyan,Dolly	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003-*007	NEG	POS	*003	SSP
8028	Uhrberg,Markus	POS	NEG	POS	NT	POS	POS	POS	NT	POS	POS	NEG	POS	POS	NEG	NT	NT	SSP
3775	Vidan-Jeras,Blan	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8023	Vilches,Carlos	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	DEL	SSP
705	Watkins,David I.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	*00103/ *003/ *004/ *006- *009	NEG	POS	POS	SSOP
124	Witt,Campbell	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	NT	NT	MULTIPLEX SSP
1466	Yu,Neng	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	POS	SSP,SSOP
5282	Yu,Neng	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP
713	Zachary,Andrea	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	DEL	SSP

Table 5. KIR Exchange Sample: KDNA #104

CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
8022	Olerup SSP	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
3966	Permpikul&Vejba	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8030	Poulton,Kay V.	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSOP
8057	Ray&Balazs	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	*004/ *006-	POS	POS	POS	SSOP
3753	Reed&Rajalingam	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSOP,SSP
8064	Roberts,Chrissy	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	*003/ *004/ *006-*009	POS	POS	*003	WGA-SSP
8060	Rost&Klein	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSOP
3410	Schroeder,M.L.	POS	POS	POS	POS	A, B	POS	POS	POS	POS	POS	POS	POS	*003/ *004/ *006	POS	POS	*003	SSP
1426	Senitzer,David	POS	POS	POS	POS	A*001, B*002	*008	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS	MULTIPLEX SSP
769	Tavoularis,Sofia	POS	POS	POS	POS	A*001/ *005/ *012, B*002- *004/ *006- *011/ *013	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS	SSOP,SSP
230	Thoni,Deborah	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSOP
747	Tiercy,Jean-Marie	POS	POS	POS	POS	A*001/ *005, B*002- *004/ *006/ *007	POS	POS	POS	POS	POS	POS	POS	*003/ *004/ *006/ *007	POS	POS	*00301/ *00302	SSP
5451	Tilanus,Marcel	POS	NT	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSOP
4021	Trachtenberg,Eliz	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8024	Trowsdale,John	POS	POS	POS	NT	POS	POS	NT	NT	POS	POS	POS	POS	DEL	POS	POS	DEL	SSP
5462	Turner,E.V.	POS	POS	POS	POS	A, B	POS	POS	POS	POS	*002- *004	POS	POS	POS	POS	POS	POS	SSP
8053	Tyan,Dolly	POS	POS	POS	POS	A, B	POS	POS	POS	POS	POS	POS	POS	*003-*007	POS	POS	*003	SSP
8028	Uhrberg,Markus	POS	POS	POS	NT	POS	POS	POS	NT	POS	POS	POS	POS	POS	POS	NT	NT	SSP
3775	Vidan-Jeras,Blan	POS	POS	POS	POS	A, B	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8023	Vilches,Carlos	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	SSP
705	Watkins,David I.	POS	*001-*003/ *005	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	*00103/ *003/ *004/ *006- *009	POS	POS	POS	SSOP
124	Witt,Campbell	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	NT	NT	MULTIPLEX SSP
1466	Yu,Neng	POS	POS	POS	POS	A, B	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS	SSP,SSOP
5282	Yu,Neng	POS	POS	POS	POS	A, B	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	DEL	SSP
713	Zachary,Andrea	POS	POS	POS	POS	A, B	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	DEL	SSP

