

# REPORT OF THE 11TH UCLA INTERNATIONAL KIR EXCHANGE

*FEBRUARY 7, 2007*

KIR

41-44

Dear Colleagues:

This is the third UCLA International KIR Exchange report for samples typed in year 2006. We have now completed 11 KIR exchange studies since the program was initiated in 2004.

For the 11<sup>th</sup> KIR Exchange, 4 DNA samples (KDNA#41-44) were shipped to each laboratory on August 9, 2006. Forty-nine laboratories submitted their KIR typing results. The majority of the laboratories used commercial or "in house" developed sequence-specific primer (SSP) based PCR typing systems, and the remaining laboratories used either a sequence-specific oligonucleotide probe (SSOP) method, or a multiplexed SSP method, or the combination of these methods. Yu's laboratory performed sequencing-based typing (SBT) method to elucidate allele-level results for several KIR loci. The majority of the laboratories performed subtyping for 2DL5, 2DS4, and 3DP1.

The results for the 11<sup>th</sup> KIR Exchange are summarized in Table 1 and individual laboratory results reported for each DNA sample are provided in Tables 2-5. No discrepancy was reported for the presence or absence typing of KIR2DL1, 2DL2, 2DL3, 2DL4, 3DL1, 3DL2, 3DL3, 3DS1, 2DS3, 2DP1 and 3DP1 genes.

Discrepant results from the consensus typing are italicized in the listing of results (Tables 2-5), 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 active participation in this program.

Best regards,

Marie Lau, Elaine F. Reed, and Raja Rajalingam  
UCLA Immunogenetics Center  
Department of Pathology and Laboratory Medicine  
David Geffen School of Medicine  
University of California at Los Angeles

**KIR Exchange Sample: KDNA # 0041:**

The ethnic origin of this DNA donor is unknown. The consensus KIR type is: 2DL2-2DL4-2DL5-3DL1-3DL2-3DL3-2DS1-2DS2-2DS4-2DS5-3DP1. This is a unique KIR genotype observed at a frequency of 2% in populations on Cook Island, New Zealand (1). One laboratory could not confirm the presence of 2DL5 gene. Although most laboratories reported this sample to carry only 2DL5B, one laboratory reported it as positive for both 2DL5A and 2DL5B genes. Those laboratories performing subtyping reported this sample as positive for only 2DS4 deletion variants.

**KIR Exchange Sample: KDNA # 0042:**

KDNA#0042 was obtained from a Caucasian blood donor. The consensus KIR type is: 2DL1-2DL3-2DL4-2DL5-3DL1-3DL2-3DL3-3DS1-2DS1-2DS3-2DS4-2DP1-3DP1. This is a common KIR genotype (~5-8%), found in Japanese (2), Korean (3), and Chinese populations (4). This same KIR genotype was also described in populations in New Zealand (1). Three different laboratories reported this DNA as either negative for 2DL5, or positive for 2DS2, or positive for 2DS5. All subtyping laboratories reported 2DL5A and 2DS4 full-length variants.

**KIR Exchange Sample: KDNA # 0043:**

KDNA#0043 was derived from an Asian donor. The consensus KIR type is: 2DL1-2DL3-2DL4-2DL5-3DL1-3DL2-3DL3-3DS1-2DS1-2DS4-2DS5-2DP1-3DP1. This is the second most common KIR genotype found in most populations (5,6). Two laboratories reported this DNA as negative for 2DS1. All laboratories that subtyped this DNA reported it as positive for 2DL5A and 2DS4 full-length variants.

**KIR Exchange Sample: KDNA # 0044:**

The ethnic origin of this DNA donor is unknown. The consensus KIR type is: 2DL1-2DL3-2DL4-2DL5-3DL1-3DL2-3DL3-3DS1-2DS1-2DS3-2DS4-2DP1-3DP1. This is the third most common KIR genotype (~5-12%), in Japanese (2), Korean (3), Chinese (4) and in New Zealand populations (1).

Three laboratories reported that this DNA was negative for 2DS4 and another 2 laboratories reported it as negative for 2DS1. All laboratories that subtyped this DNA reported the sample as being positive for 2DL5A and 2DS4 deletion variants.

## References

1. Velickovic, M., Velickovic, Z., and Dunckley, H. (2006). Diversity of killer cell immunoglobulin-like receptor genes in Pacific Islands populations. *Immunogenetics* 58, 523-532.
2. Yawata, M., Yawata, N., McQueen, K. L., Cheng, N. W., Guethlein, L. A., Rajalingam, R., Shilling, H. G., and Parham, P. (2002b). Predominance of group A KIR haplotypes in Japanese associated with diverse NK cell repertoires of KIR expression. *Immunogenetics* 54, 543-550.
3. Whang, D. H., Park, H., Yoon, J. A., and Park, M. H. (2005). Haplotype analysis of killer cell immunoglobulin-like receptor genes in 77 Korean families. *Hum Immunol* 66, 146-154.
4. Jiang, K., Zhu, F. M., Lv, Q. F., and Yan, L. X. (2005). Distribution of killer cell immunoglobulin-like receptor genes in the Chinese Han population. *Tissue Antigens* 65, 556-563.
5. Du, Z., Gjertson, D. W., Reed, E. F., and Rajalingam, R. (2007). Receptor-ligand analyses define minimal killer cell Ig-like receptor (KIR) in humans. *Immunogenetics* 59, 1-15.
6. Yawata, M., Yawata, N., Abi-Rached, L., and Parham, P. (2002a). Variation within the human killer cell immunoglobulin-like receptor (KIR) gene family. *Crit Rev Immunol* 22, 463-482.

**Table 1. Summary of the 11th KIR Exchange (KDNA#41-44)**

KIR Ex.	DNA	# reporting labs	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	
#11	#0041	49	NEG	POS *001-*003/ *005 [1] *001-*003, *005 [1]	NEG	POS *002,*008/*009 or *002, - [1] NT [2]	POS B [14] B*002/*004 [2] B*002-*004 [2] B*006 [1] B*002-*007 [1] B*001/*003/*004 [1] A, B [1] <i>NEG [1]</i>	POS *00402, - [1]	POS *003, *006/*014 [1]	POS NT [1]	NEG	POS *002-*004 [2]	POS	NEG	POS *003-*006 [8] *003-*007 [6] *003/*004/*006 [4] *003 [3] *003/*006 [2] DEL [2] *003-*005 [1] *003/*004/*006/*007 [1] *003,*004,*006,*007 [1]	POS	NEG NT [2]	POS *001/*002/*004 [10] *001/*002 [6] *001/*002,*004 [1] *001,*002,*004 [1] *001-*004 [1] NT [2]	
	#0042	49	POS *003, - [1] *001-*003 [1]	NEG	POS *001, - [1] *001 [1]	POS *00102/*00103, *00202/*00801/ *009 [1] NT [2]	POS A [15] A*001/*005 [4] A*001 [2] A*005 [1] A*001,*005 [1] A*002/*005 [1] <i>NEG [1]</i>	POS *002 [1] *002/*006- *008/*015/ *017/*018,- [1]	POS *001/*002/ *009/*013, *006/*014/ *015 [1]	POS NT [1]	POS	POS *002-*004 [2]	NEG <i>POS [1]</i>	POS *00102/ *00103 [1]	POS *001/*002 [20] *001 [3] FULL [2] *001,*002 [1]	NEG <i>POS [1]</i>	POS *001/*002 [1] NT [2]	POS *003 [18] *00301/*00302 [2] *003-*005 [1] NT [2]	
	#0043	49	POS *003, - [1] *001-*003 [1]	NEG	POS *001, - [1] *001 [1]	POS *00102/*00103, *00202/*00801/ *009 [1] NT [2]	POS A [14] A*001/*005 [4] A*001 [3] A*001,*005 [1] A*001/*003/*004 [1]	POS *002/*006- *008/*015/ *017/*018,- [1]	POS *002/*010/ *016 [1]	POS NT [1]	POS	POS	POS *002-*004 [2] <i>NEG [2]</i>	NEG	NEG	POS *001/*002 [21] *001 [3] FULL [2] *001,*002 [1]	POS	POS NT [2]	POS *003 [19] *00301/*00302 [2] NT [2]
	#0044	49	POS *003, - [1] *001-*003 [1]	NEG	POS *001, - [1] *001 [1]	POS *00202/*008/ *009 or *008/*009, - [1] NT [2]	POS A [15] A*001/*005 [4] A*001 [2] A*005 [1] A*001,*005 [1] A*002/*005 [1]	POS *002/*006- *008/*015/ *017/*018,- [1]	POS *006,*007/ *014 [1]	POS NT [1]	POS	POS	POS *002-*004 [2] <i>NEG [2]</i>	NEG	POS *00102/ *00103 [1]	POS *003-*006 [6] *003/*004/*006 [4] *003 [3] *003/*006 [2] *003-*007 [2] *004, - [1] *004 [1] DEL [2] *003-*005 [1] *003-*007 [1] *003/*004/*006/*007 [1] *003,*004,*006,*007 [1] <i>NEG [3]</i>	NEG	POS NT [2]	POS *003 [20] *00301/*00302 [2] NT [2]

**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

**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 #41**

CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
5488	Adams, Sharon	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	*003- *006	POS	NEG	*001/ *002/ *004	SSP
8034	Aubrey, Michael	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
8033	Balazs, Ivan	NEG	*001- *003/ *005	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	*003- *007	POS	NEG	POS	SSOP
8025	Carrington/Mar	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	*001/ *002/ *004	SSP
785	Chan, Soh Ha	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
3224	Chen, Dongfeng	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	RSSOP, SSP
3966	Chongkolwatana,	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	
16	Cook, Daniel J.	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
5130	Costeas, Paul A	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	*003	POS	NEG	*001/ *002	SSP
189	Crowe, Deborah	NEG	POS	NEG	POS	B*002/ *004	POS	POS	POS	NEG	POS	POS	NEG	*003	POS	NEG	*001/ *002	SSP
8030	Davidson/Poult	NEG	POS	NEG	POS	*002- *004	POS	POS	POS	NEG	POS	POS	NEG	*003	POS	NEG	*001/ *002	SSP
1108	Davis, Mary	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSOP
8031	Dinauer, David	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	*003- *007	POS	NEG	*001/ *002/ *004	SSP
8038	Fernandez-Vina, M	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL (*003/ *006)	POS	NEG	POS	SSOP
762	Fischer, Gottf	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	*003- *006	POS	NEG	POS	SSP
8026	Gardiner, Clair	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
3186	Geczy, Andrew	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
8036	Gillespie, Kath	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	*003- *006	POS	NEG	*001/ *002/ *004	SSP
8040	Gladman/Pellet	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
4985	Graff, Ralph J.	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	*003- *007	POS	NEG	*001/ *002, *004	SSP
8041	Han, Hoon	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	*003/ *004/ *006	POS	NEG	*001/ *002	SSP
1461	Hidajat, Melan	NEG	POS	NEG	POS	B*002- *004	POS	POS	POS	NEG	POS	POS	NEG	*003- *006	POS	NEG	*001/ *002/ *004	SSP

**Table 2. KIR Exchange Sample: KDNA #41**

CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
615	Holdsworth/Tait	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	*003- *006	POS	NEG	*001/ *002/ *004	
5000	Hsu,Susan H.	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSOP,SSP
4337	Kim,Tai-Gyu	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
8037	Kotsch,Katja	NEG	POS	NEG	POS	B*002- *007	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
836	KuKuruga,Debr	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	*003- *006	POS	NEG	*001/ *002/ *004	
8003	Marcos,Cintia	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSOP
5142	Marsh,Steven	NEG	POS	NEG	*002, *008/ *009 or *002, -	POS	*00402, -	*003, *006/ 014	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP, SSOP-2DS4
8027	Middleton,Der	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSOP
733	Mytilineos,Joan	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
2549	Nehlsen-Canna	NEG	POS	NEG	POS	A, B	POS	POS	POS	NEG	POS	POS	NEG	*003/ *004/ *006	POS	NEG	*001- *004	SSP
794	Partanen,Jukka	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
4141	Pollack,Maril	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	*003- *007	POS	NEG	POS	SSP
3753	Reed/Rajaling	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
3798	Reinsmoen,Nan	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	*003/ *004/ *006	POS	NEG	*001/ *002/ *004	
1694	Sauer,Norbert	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
3410	Schroeder,M.L.	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	*003/ *004/ *006	POS	NEG	POS	SSP
1426	Senitzer,David	NEG	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	*003- *007	POS	NT	NT	MULTIPLEX SSP
740	Snider,Denis	NEG	POS	NEG	POS	NEG	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
702	Spannagl,Michae	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	*003- *005	POS	NEG	*001/ *002/ *004	SSP
4021	Trachtenberg,Eliz	NEG	*001- *003, *005	NEG	POS	POS	POS	POS	POS	NEG	*002- *004	POS	NEG	*003, *004, *006, *007	POS	NEG	POS	MALDI-TDF/SNP
8024	Trowsdale,Joh	NEG	POS	NEG	NT	POS	POS	POS	POS	NEG	POS	POS	NEG	DEL	POS	NEG	POS	SSP
5462	Turner,Victor	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	*003- *006	POS	NEG	*001, *002, *004	SSP

**Table 2. KIR Exchange Sample: KDNA #41**

CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
8028	Uhrberg,Marku	NEG	POS	NEG	NT	POS	POS	POS	NT	NEG	POS	POS	NEG	*003- *007	POS	NT	NT	SSP
3775	Vidan-Jeras,BI	NEG	POS	NEG	POS	B	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	NEG	POS	SSP
8023	Vilches,Carlo	NEG	POS	NEG	POS	B*006	POS	POS	POS	NEG	POS	POS	NEG	*003/ *004/ *006/ *007	POS	NEG	*001/ *002	SSP
1466	Yu,Neng	NEG	POS	NEG	POS	*001/ *003/ *004	POS	POS	POS	NEG	*002- *004	POS	NEG	*003/ *006	POS	NEG	*001/ *002/ *004	SSOP,SBT
713	Zachary,Andre	NEG	POS	NEG	POS	*002/ *004	POS	POS	POS	NEG	POS	POS	NEG	*003- *006	POS	NEG	*001/ *002	SSP

**Table 3. KIR Exchange Sample: KDNA #42**

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	*001/ *002	NEG	POS	*003	SSP
8034	Aubrey, Michael	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8033	Balazs, Ivan	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	NEG	POS	POS	SSOP
8025	Carrington/Mar	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	FULL	NEG	POS	*003	SSP
785	Chan, Soh Ha	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
3224	Chen, Dongfeng	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	RSSOP, SSP
3966	Chongkolwatana,	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	
16	Cook, Daniel J.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
5130	Costeas, Paul A	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	NEG	POS	*003	SSP
189	Crowe, Deborah	POS	NEG	POS	POS	A*001	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	NEG	POS	*003	SSP
8030	Davidson/Poult	POS	NEG	POS	POS	*001	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	NEG	POS	*00301/ *00302	SSP
1108	Davis, Mary	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP
8031	Dinauer, David	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	NEG	POS	*003	SSP
8038	Fernandez-Vina, M	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP
762	Fischer, Gottf	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	NEG	POS	*003- *005	SSP
8026	Gardiner, Clair	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
3186	Geczy, Andrew	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8036	Gillespie, Kath	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	POS	POS	*00301/ *00302	SSP
8040	Gladman/Pellet	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	*001/ *002	NEG	POS	*003	SSP
8041	Han, Hoon	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	*002	NEG	POS	*003	SSP
1461	Hidajat, Melan	POS	NEG	POS	POS	A*001/ *005	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	NEG	POS	*003	SSP
615	Holdsworth/Tait	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	NEG	POS	*003	
5000	Hsu, Susan H.	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
8037	Kotsch, Katja	POS	NEG	POS	POS	A*001, *005	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
836	KuKuruga, Debr	POS	NEG	POS	POS	A*001/ *005	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	NEG	POS	*003	
8003	Marcos, Cintia	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP



**Table 3. KIR Exchange Sample: KDNA #42**

CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
5142	Marsh, Steven	*003, -	NEG	*001, -	*00102/ *00103, *00202/ *00801/ *009	POS	*002/ *006- *008/ *015/ *017/ *018, -	*001/ *002/ *009/ *013, *006/ *014/ *015	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP, SSOP-2DS4
8027	Middleton, Der	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP
733	Mytilineos, Joan	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
2549	Nehlsen-Canna	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	NEG	POS	*003	SSP
794	Partanen, Jukka	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	*003	SSP
4141	Pollack, Maril	POS	NEG	POS	POS	*001/ *005	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	NEG	POS	POS	SSP
3753	Reed/Rajaling	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
3798	Reinsmoen, Nan	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	NEG	*001/ *002	*003	
1694	Sauer, Norbert	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
3410	Schroeder, M.L.	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	NEG	POS	*003	SSP
1426	Senitzer, David	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	NEG	NT	NT	MULTIPLEX SSP
740	Snider, Denis	POS	NEG	POS	POS	NEG	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
702	Spannagl, Michae	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*001/ *002	NEG	POS	*003	SSP
4021	Trachtenberg, E	POS	NEG	POS	POS	POS	POS	POS	POS	POS	*002- *004	NEG	POS	*001	NEG	POS	POS	MALDI-TOF/SNP
8024	Trowsdale, Joh	POS	NEG	POS	NT	POS	POS	POS	POS	POS	POS	NEG	POS	FULL	NEG	POS	POS	SSP
5462	Turner, Victor	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*001, *002	NEG	POS	*003	SSP
8028	Uhrberg, Marku	POS	NEG	POS	NT	POS	POS	POS	NT	POS	POS	NEG	POS	*001/ *002	NEG	NT	NT	SSP
3775	Vidan-Jeras, Bl	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8023	Vilches, Carlo	POS	NEG	POS	POS	A*005	POS	POS	POS	POS	POS	NEG	POS	*001	NEG	POS	*003	SSP
1466	Yu, Neng	*001- *003	NEG	*001	POS	*002/ *005	*002	POS	POS	POS	*002- *004	NEG	*00102/ *00103	*001	NEG	POS	*003	SSOP, SBT
713	Zachary, Andre	POS	NEG	POS	POS	*001/ *005	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	SSP

**Table 4. KIR Exchange Sample: KDNA #43**

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	NEG	*001/ *002	POS	POS	*003	SSP
8034	Aubrey, Michael	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8033	Balazs, Ivan	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	POS	SSOP
8025	Carrington/Mar	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	*003	SSP
785	Chan, Soh Ha	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
3224	Chen, Dongfeng	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	RSSOP, SSP
3966	Chongkolwatana,	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	
16	Cook, Daniel J.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
5130	Costeas, Paul A	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*003	SSP
189	Crowe, Deborah	POS	NEG	POS	POS	A*001	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	POS	SSP
8030	Davidson/Poult	POS	NEG	POS	POS	*001	POS	POS	POS	POS	NEG	NEG	NEG	*001/ *002	POS	POS	*00301/ *00302	SSP
1108	Davis, Mary	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSOP
8031	Dinauer, David	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*003	SSP
8038	Fernandez-Vina, M	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSOP
762	Fischer, Gottf	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*003	SSP
8026	Gardiner, Clair	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
3186	Geczy, Andrew	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8036	Gillespie, Kath	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*00301/ *00302	SSP
8040	Gladman/Pellet	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
4985	Graff, Ralph J.	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*003	SSP
8041	Han, Hoon	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*003	SSP
1461	Hidajat, Melan	POS	NEG	POS	POS	A*001/ *005	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*003	SSP
615	Holdsworth/Tait	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*003	
5000	Hsu, Susan H.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSOP, SSP
4337	Kim, Tai-Gyu	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8037	Kotsch, Katja	POS	NEG	POS	POS	A*001, *005	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
836	KuKuruga, Debr	POS	NEG	POS	POS	A*001/ *005	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*003	
8003	Marcos, Cintia	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSOP

**Table 4. KIR Exchange Sample: KDNA #43**

CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
5142	Marsh, Steven	*003, -	NEG	*001, -	*00102/ *00103, *00202/ *00801/ *009	POS	*002/ *006- *008/ *015/ *017/ *018, -	*002, *010/ *016	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP, SSOP-2DS4
8027	Middleton, Der	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSOP
733	Mytilineos, Joan	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
2549	Nehlsen-Canna	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*003	SSP
794	Partanen, Jukka	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	*003	SSP
4141	Pollack, Maril	POS	NEG	POS	POS	*001/ *005	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	POS	SSP
3753	Reed/Rajaling	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
3798	Reinsmoen, Nan	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*003	
1694	Sauer, Norbert	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
3410	Schroeder, M.L.	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*003	SSP
1426	Senitzer, David	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	NT	NT	MULTIPLEX SSP
740	Snider, Denis	POS	NEG	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	NEG	POS	POS	POS	POS	SSP
702	Spannagl, Michae	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*003	SSP
4021	Trachtenberg, E	POS	NEG	POS	POS	POS	POS	POS	POS	POS	*002- *004	NEG	NEG	*001	POS	POS	POS	MALDI-TOF/SNP
8024	Trowsdale, Joh	POS	NEG	POS	NT	POS	POS	POS	POS	POS	POS	NEG	NEG	FULL	POS	POS	POS	SSP
5462	Turner, Victor	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	*001, *002	POS	POS	*003	SSP
8028	Uhrberg, Marku	POS	NEG	POS	NT	POS	POS	POS	NT	POS	POS	NEG	NEG	*001/ *002	POS	NT	NT	SSP
3775	Vidan-Jeras, Bl	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8023	Vilches, Carlo	POS	NEG	POS	POS	A*001	POS	POS	POS	POS	POS	NEG	NEG	*001	POS	POS	*003	SSP
1466	Yu, Neng	*001- *003	NEG	*001	POS	*001/ *003/ *004	POS	POS	POS	POS	*002- *004	NEG	NEG	*001	POS	POS	*003	SSOP, SBT
713	Zachary, Andre	POS	NEG	POS	POS	*001/ *005	POS	POS	POS	POS	POS	NEG	NEG	*001/ *002	POS	POS	*003	SSP

**Table 5. KIR Exchange Sample: KDNA #44**

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- *006	NEG	POS	*003	SSP
8034	Aubrey, Michael	POS	NEG	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	NEG	POS	POS	SSP
8033	Balazs, Ivan	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	*003- *007	NEG	POS	POS	SSOP
8025	Carrington/Mar	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	*003	SSP
785	Chan, Soh Ha	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
3224	Chen, Dongfeng	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	RSSOP, SSP
3966	Chongkolwatana,	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	
16	Cook, Daniel J.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
5130	Costeas, Paul A	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003	NEG	POS	*003	SSP
189	Crowe, Deborah	POS	NEG	POS	POS	A*001	POS	POS	POS	POS	POS	NEG	POS	*003	NEG	POS	*003	SSP
8030	Davidson/Poult	POS	NEG	POS	POS	*001	POS	POS	POS	POS	POS	NEG	POS	*003	NEG	POS	*00301/ *00302	SSP
1108	Davis, Mary	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP
8031	Dinauer, David	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003- *007	NEG	POS	*003	SSP
8038	Fernandez-Vina, M	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	DEL (*004, -)	NEG	POS	POS	SSOP
762	Fischer, Gottf	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003/ *006	NEG	POS	*003	SSP
8026	Gardiner, Clair	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
3186	Geczy, Andrew	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8036	Gillespie, Kath	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003/ *006	NEG	POS	*00301/ *00302	SSP
8040	Gladman/Pellet	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	*003/ *007	NEG	POS	*003	SSP
8041	Han, Hoon	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	*003/ *004/ *006	NEG	POS	*003	SSP
1461	Hidajat, Melan	POS	NEG	POS	POS	A*001/ *005	POS	POS	POS	POS	POS	NEG	POS	*003- *006	NEG	POS	*003	SSP
615	Holdsworth/Tait	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003- *006	NEG	POS	*003	
5000	Hsu, Susan H.	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
8037	Kotsch, Katja	POS	NEG	POS	POS	A*001, *005	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
836	KuKuruga, Debr	POS	NEG	POS	POS	A*001/ *005	POS	POS	POS	POS	POS	NEG	POS	*003- *006	NEG	POS	*003	
8003	Marcos, Cintia	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP

**Table 5. KIR Exchange Sample: KDNA #44**

CTR	Investigator Name	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	METHOD
5142	Marsh, Steven	*003, -	NEG	*001, -	*00202, *008/ *009 or *008/ *009, -	POS	*002/ *006- *008/ *015/ *017/ *018, -	*006, *007/ *014	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP, SSOP-2DS4
8027	Middleton, Der	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSOP
733	Mytilineos, Joan	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
2549	Nehlsen-Canna	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003/ *004/ *006	NEG	POS	*003	SSP
794	Partanen, Jukka	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	*003	SSP
4141	Pollack, Maril	POS	NEG	POS	POS	*001/ *005	POS	POS	POS	POS	POS	NEG	POS	*003/ *004/ *006/ *007	NEG	POS	POS	SSP
3753	Reed/Rajaling	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
3798	Reinsmoen, Nan	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003/ *004/ *006	NEG	POS	*003	
1694	Sauer, Norbert	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
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	POS	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	NT	NT	MULTIPLEX SSP
740	Snider, Denis	POS	NEG	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	NEG	POS	POS	SSP
702	Spannagl, Michae	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003- *005	NEG	POS	*003	SSP
4021	Trachtenberg, E	POS	NEG	POS	POS	POS	POS	POS	POS	POS	*002- *004	NEG	POS	*003, *004, *006, *007	NEG	POS	POS	MALDI-TOF/SNP
8024	Trowsdale, Joh	POS	NEG	POS	NT	POS	POS	POS	POS	POS	POS	NEG	POS	DEL	NEG	POS	POS	SSP
5462	Turner, Victor	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	*003- *006	NEG	POS	*003	SSP
8028	Uhrberg, Marku	POS	NEG	POS	NT	POS	POS	POS	NT	POS	POS	NEG	POS	NEG	NEG	NT	NT	SSP
3775	Vidan-Jeras, Bl	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	POS	POS	NEG	POS	POS	SSP
8023	Vilches, Carlo	POS	NEG	POS	POS	A*005	POS	POS	POS	POS	POS	NEG	POS	NEG	NEG	POS	*003	SSP
1466	Yu, Neng	*001- *003	NEG	*001	POS	*002/ *005	POS	POS	POS	POS	*002- *004	NEG	*00102/ *00103	*004	NEG	POS	*003	SSOP, SBT
713	Zachary, Andre	POS	NEG	POS	POS	*001/ *005	POS	POS	POS	POS	POS	NEG	POS	*003- *006	NEG	POS	*003	SSP