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 11th 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 11th 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,

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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 an 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

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