

554 **Supplemental Figures**

555 **Figure S1.** Framework genes showing the position of amplicons and the annealing sites of
556 sequencing primers described in supplemental Table 1.

557 **Figure S2.** Neighbor-joining trees of *KIR3DL3* alleles. a) Relationships among alleles based on
558 the nucleotide sequences of exons encoding the three extracellular domains. b) Relationships
559 based on exons 7-9 encoding the transmembrane and cytoplasmic tail. Diamonds following the
560 allele names identify alleles characterized in this study.

561 **Figure S3** Neighbor-joining tree of *KIR2DL4* alleles based on the nucleotide coding sequence of
562 the gene. Diamonds following the allele names identify alleles characterized in this study.

563 **Figure S4.** Neighbor-joining tree of *KIR3DL2* alleles based on the nucleotide coding sequence
564 of the gene. Diamonds following the allele names identify alleles characterized in this study.

Supplementary Table 1. Framework locus polymerase chain reaction amplification primers

KIR Locus	Amplicon	KIR SBT PCR primers			Position ^b F/R
		Forward primer	Reverse primer	Size bp	
KIR2DL4	A2	2DL4-5UTR-TCCTGGCAGCAGAAGCTGCACC	2DL4-SSPR-GGAAAGAGCCGAAGCATC	2564	5UTR/G581
	A ^a	2DL4-E1 (23-40)--CACCCACGGTCATCATCC	2DL4-PCR-i6R-N1--CCCTTTCCTGTTGGAGTGT	5378	28C/in6
	B ^a	2DL4-E6F2--CATGTTCTAGGAAACCCTTCT	2DL4-I9R2(3UTR)--TGGGCTAAGCAAAGGAGTGT	5420	666T/3UTR
KIR3DL2	A2	3DL2-5UTR-TGTCTGCACCGGCAGCACC	3DL2-SSPR--GACCACACGCAGGGCAG	5421	5UTR/C898
	A ^a	3DL2-E1F--GTCGTCAGCATGGCGTGC	3DL2-i6R--TGCATCCAAGGCTTCCACC	8706	30C/in6
	B ^a	3DL2-i5F--TCACATCTCTCCTGTCCCG	3DL2-E9R--GGCTGTTGTCTCCCTAGAAA	7693	i5F/T1362
KIR3DL3	A2	3DL3-5UTR-TGTCTGCACCGGCAGCACC	3DL3-SSPR--CCGACAACCTCATAGGGTA	33614	5UTR/T605
	A ^a	3DL3-E2 (i1-49)F--TTCCAGGGTTCTTCTTGCTGG	3DL3-E5R-143--TGACCCTCAGCACYGCAGT	4415	49G/A817
			3DL3-E5(975-I5)R--CTCACCTGTGACAGAAACGG	552	49G/C935
B ^a	3DL3-E5(778-796)F--CCCGGAGCTTGTTTGACATT	3DL3-E9 (1350-71)R--AGAAGACAACCTTGGATCTGC	6569	756T/3UTR	

^a Sequence of primer pairs previously reported (Gedil et al. 2005;Gedil et al. 2007;Hou et al. 2007;Shulse et al. 2007).

^b Nucleotide 1 is the first nucleotide of exon 1 based on the sequence of *2DL4*, *3DL2*, and *3DL3* full length genomic DNA.

Supplementary Table 2. Sequencing primers used for framework genes.

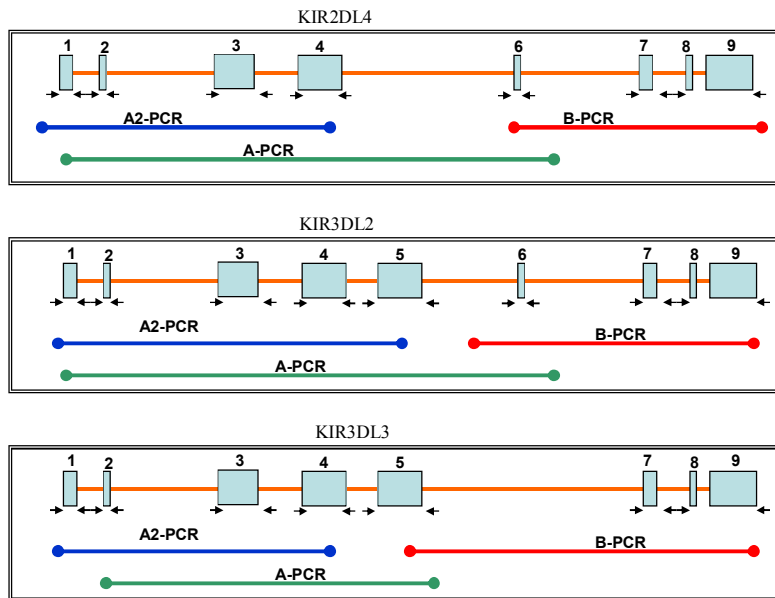
KIR Locus	Primer	Sequence (5'-3')	Strand	Nucleotide Position^a	Sequence Covers Exon
2DL4	2DL4-SEQ-E1R	CATCCTCACCACTCACTTGC	Antisense	126-145	Exon 1
	2DL4-SEQ-E2F	GGCTCAGGAGGAAAGGGTAG	Sense	177-196	Exon 2
	2DL4-SEQ-E2R	CAGGCCTTCCCATGGTCAG	Antisense	374-392	Exon 2
	2DL4-SEQ-E3F	GGGGAGAATCTTCTGAGCAC	Sense	1063-1082	Exon 3
	2DL4-SEQ-E3R	CACCAGAAGCTCTGGGACTC	Antisense	1469-1488	Exon 3
	2DL4-SEQ-E5F	AGAGCAGGGCAGTGAGTTCT	Sense	2217-2236	Exon 5
	2DL4-SEQ-E5R	TCCACATCTGTCCATGCTTC	Antisense	2677-2696	Exon 5
	2DL4-SEQ-E6F	CCAGGGCCCAACATTAGATA	Sense	5074-5093	Exon 6
	2DL4-SEQ-E6R	ATCACAGAGCTGGCAGGTG	Antisense	5316-5334	Exon 6
	2DL4-SEQ-E7F	CCTGGCAACCAAGAAATGAG	Sense	9400-9419	Exon 7
	2DL4-SEQ-E7R	AGACTTTCCTGCCAGTGAGG	Antisense	9663-9682	Exon 7
	2DL4-SEQ-E89F	CCCCCTGTGTGTTGGTATCT	Sense	9965-9984	Exons 8,9
	2DL4-SEQ-E89R	TAAGCAAGAGACAGGCACCA	Antisense	10519-10538	Exons 8, 9
	3DL2	3DL2-SEQ-E1R	CGAGATCTCCATCCCCACT	Antisense	66-84
3DL2-SEQ-E2F		AGTTTACCTTCAGCCCAGCA	Sense	631-650	Exon 2
3DL2-SEQ-E2R		GAGACTCCCCGACAGGACTT	Antisense	848-867	Exon 2
3DL2-SEQ-E3F		AGCGGAAATGGGAGAATCTT	Sense	1436-1455	Exon 3
3DL2-SEQ-E3R		CAGAAGCTCTGGGATTCAGG	Antisense	1847-1866	Exon 3
3DL2-SEQ-E4F		ACCCTCACTCATTCCAGGTG	Sense	3196-3215	Exon 4
3DL2-SEQ-E4R		TCTGTGTCCCAATGACAATGA	Antisense	3595-3615	Exon 4
3DL2-SEQ-E5F		CTCAGGTATGAGGGGAGCTG	Sense	5078-5097	Exon 5
3DL2-SEQ-E5R		TCTGCATCTGTCCATGCTTC	Antisense	5515-5534	Exon 5
3DL2-SEQ-E6F		AGGGTCCAACATTAGATAACA	Sense	8492-8512	Exon 6

	3DL2-SEQ-E6R	CCAGGTTTCCAAAAGCAGAG	Antisense	8677-8696	Exon 6
	3DL2-SEQ-E7F	GTCAATCAAGAAATGAGACAA	Sense	15253-15273	Exon 7
	3DL2-SEQ-E7R	GCAATGGTCTGTGAGCTGAA	Antisense	15598-15617	Exon 7
	3DL2-SEQ-E89F	TGAAATGAGGACCCAGAAGG	Sense	15837-15856	Exons 8, 9
	3DL2-SEQ-E89R	AACCCCTCAAGACCTGACT	Antisense	16231-16250	Exons 8, 9
3DL3^b	3DL3-SEQ-E1R	CTCGATTCCCTCCAGGACT	Antisense	38-57	Exon 1
	3DL3-SEQ-E2F	GAGATGTTGGCTTGGAGTGC	Sense	442-461	Exon 2
	3DL3-SEQ-E2R	ATCAGTCAACCCCTGTGTC	Antisense	820-839	Exon 2
	3DL3-SEQ-E3F	AGAAACGTGGAAATGGGAGA	Sense	1426-1445	Exon 3
	3DL3-SEQ-E3R	GAGGTGGACAGTGAGAAGC	Antisense	1823-1842	Exon 3
	3DL3-SEQ-E4F	TAGACACCATGGAGGGGAAG	Sense	2982-3001	Exon 4
	3DL3-SEQ-E4R	AAGTCCTRGATCATTCACTC	Antisense	3418-3437	Exon 4
	3DL3-SEQ-E5F	AGCTCAGGTGTGAGGAGAGC	Sense	4890-4909	Exon 5
	3DL3-SEQ-E5R	TGAGCCTAAGTTCACCGGC	Antisense	5083-5101	Exon 5
	3DL3-SEQ-E5F2	ATCTATCCAGGGAGGCAGAG	Sense	5063-5082	Exon 5
	3DL3-SEQ-E5R2	TGGCTCTAGGATCACAAGACA	Antisense	5277-5297	Exon 5
	3DL3-SEQ-E7F	CTCCTTGGGACAGCATTGAT	Sense	10395-10414	Exon 7
	3DL3-SEQ-E7R	AGAAAGTCCTGCCTCTGTGG	Antisense	10938-10957	Exon 7
	3DL3-SEQ-E89F	AAATGAGGACCCAGAAGTGC	Sense	11231-11250	Exons 8, 9
	3DL3-SEQ-E89R	CAGCATTTGGAAGTTCCGTGTT	Antisense	11562-11583	Exons 8, 9

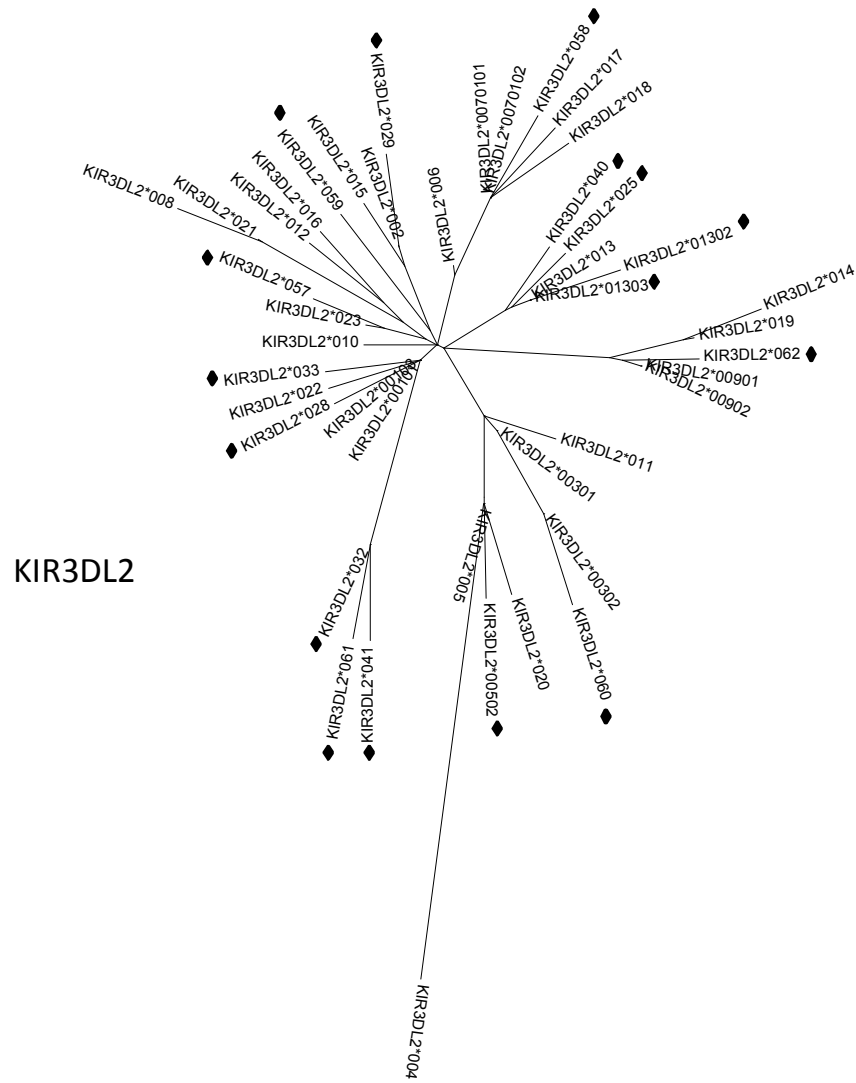
^a Nucleotide 1 is the first nucleotide of exon 1 based on the sequence of *KIR2DL4*, *KIR3DL2*, and *KIR3DL3* full length genomic DNA.

^b *KIR3DL3* primers have previously been described (Hou et al. 2007).

AFAm Framework Genes-SBT Strategy



Supplemental Figure 1



Supplemental Figure 4