

Supporting Information

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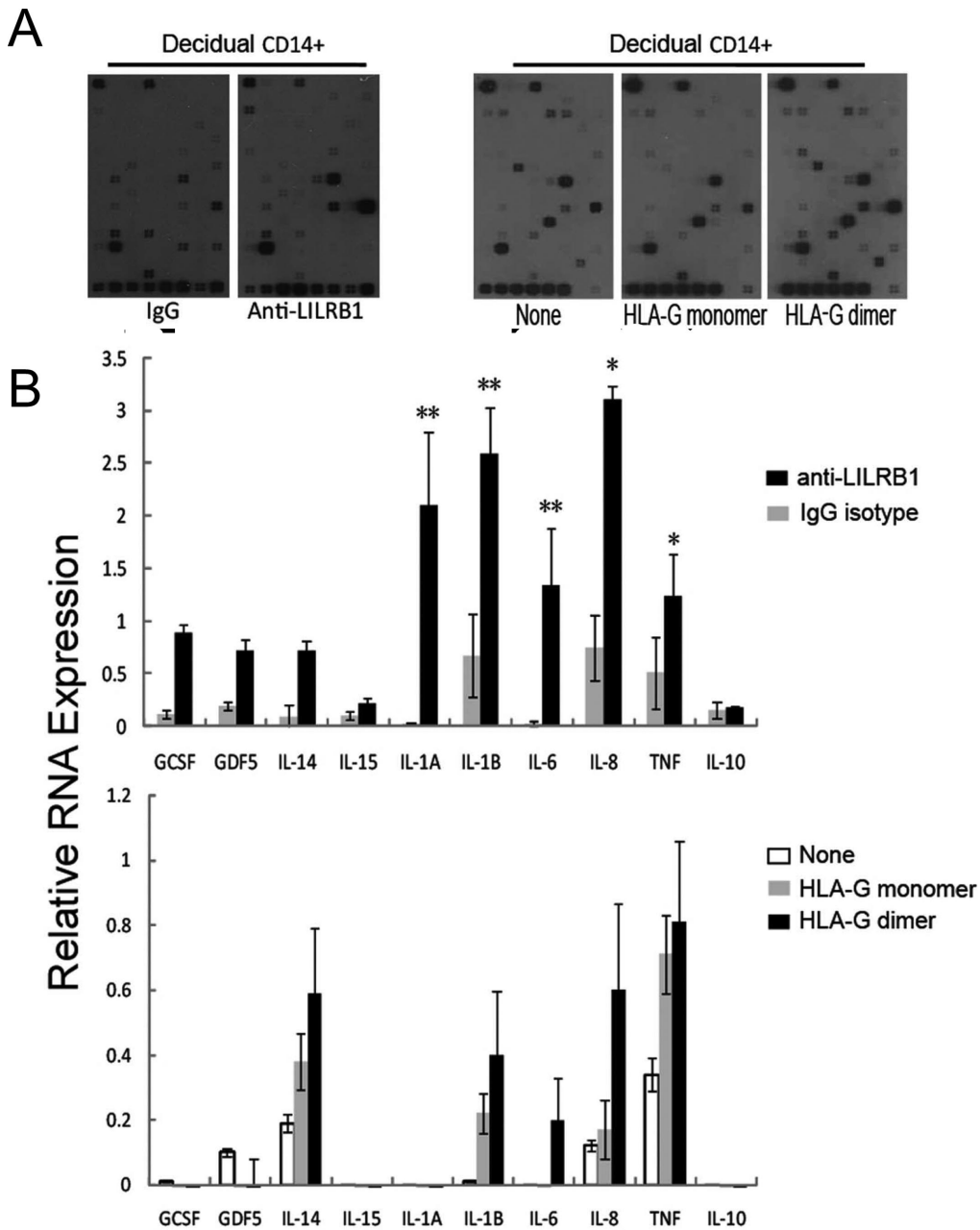


Fig. S1. Anti-LILRB1 antibody and HLA-G homodimer induce similar proinflammatory cytokine gene profiles in decidual macrophages. (A) Decidual CD14⁺ lymphocytes were cultured for 5 h in the presence of anti-LILRB1 antibody (10 μ g/mL) and goat anti-mouse IgG secondary antibody (5 μ g/mL) (Left) or in a 1:1 ratio with untransfected 721.221 cells (None), 721.221 cells transfected with HLA-G monomer, or 721.221 cells transfected with HLA-G homodimer (Right). Total RNA was isolated and biotinylated cRNAs were used as probes. Hybridization was performed to a common cytokine Superarray membrane as described in *Materials and Methods*. The arrays were exposed to X-ray film, and 1 representative of 4 images is shown. (B) Expression was normalized to GAPDH. The average of 4 experiments is shown. Decidual CD14⁺ lymphocytes produce a proinflammatory cytokine profile upon (Upper) anti-LILRB1 stimulation (black bars) and isotype controls (gray bars), or (Lower) coculture with 721.221 (white bars), 721.221 cells transfected with HLA-G monomer (gray bars), or 721.221 cells transfected with HLA-G homodimer (black bars). *, $P < 0.05$; **, $P < 0.01$. (C) Gene table for oligonucleotide GEArray human common cytokines microarray (OHS-021). For more information about gene names please visit <http://www.sabiosciences.com/genetable.php?pcatn = ohs-021>.

C

RPS27A 1	AREG 2	SLURP1 3	ATP6AP1 4	BMP1 5	BMP10 6	BMP15 7	BMP2 8
BMP3 9	BMP4 10	BMP5 11	BMP6 12	BMP7 13	BMP8B 14	CSF1 15	CSF2 16
CSF3 17	CYFIP2 18	LEFTY2 19	FAM3B 20	FAM3C 21	FGF10 22	FIGF 23	FLT3LG 24
LASS1 25	GDF10 26	GDF11 27	GDF15 28	GDF2 29	GDF3 30	GDF5 31	MSTN 32
GDF9 33	IFNA1 34	IFNA13 35	IFNA14 36	IFNA2 37	IFNA4 38	IFNA5 39	IFNA8 40
IFNB1 41	IFNG 42	IFNK 43	IFNW1 44	IK 45	IL10 46	IL11 47	IL12A 48
IL12B 49	IL13 50	TXLNA 51	IL15 52	IL16 53	IL17A 54	IL17B 55	IL17C 56
IL25 57	IL17F 58	IL18 59	IL19 60	IL1A 61	IL1B 62	IL1F10 63	IL1F5 64
IL1F6 65	IL1F7 66	IL1F8 67	IL1F9 68	IL2 69	IL20 70	IL21 71	IL22 72
IL24 73	IL26 74	IL3 75	IL4 76	IL5 77	IL6 78	IL7 79	IL8 80
IL9 81	INHA 82	INHBA 83	INHBB 84	LTA 85	LTB 86	MDK 87	NODAL 88
PDGFA 89	PDGFB 90	PTN 91	SPP1 92	TGFA 93	TGFB1 94	TGFB2 95	TGFB3 96
THPO 97	TNF 98	TNFRSF11B 99	TNFSF10 100	TNFSF11 101	TNFSF12 102	TNFSF13 103	TNFSF13B 104
TNFSF14 105	TNFSF15 106	TNFSF18 107	TNFSF4 108	CD40LG 109	FASLG 110	CD70 111	TNFSF8 112
TNFSF9 113	VEGFA 114	PUC18 115	VEGFB 116	Blank 117	AS1R2 118	AS1R1 119	AS1 120
GAPDH 121	B2M 122	HSP90AB1 123	HSP90AB1 124	ACTB 125	ACTB 126	BAS2C 127	BAS2C 128

Fig. S1. Continued.

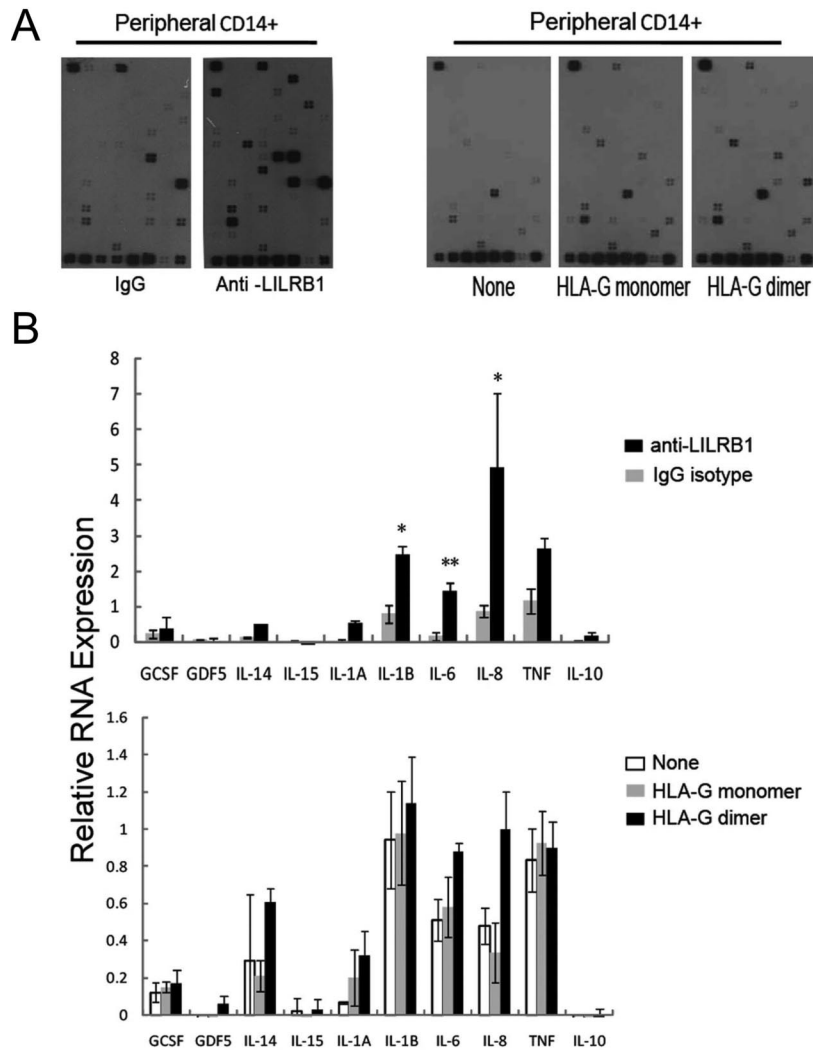


Fig. S2. Anti-LILRB1 antibody and HLA-G homodimer induce similar proinflammatory cytokine profiles in CD14⁺ peripheral blood monocytes. (A) Peripheral CD14⁺ lymphocytes were cultured for 5 h in the presence of anti-LILRB1 antibody (10 µg/mL) and goat anti-mouse IgG secondary antibody (5 µg/mL) (*Left*) or in a 1:1 ratio with untransfected 721.221 cells (None), 721.221 cells transfected with HLA-G monomer, or 721.221 cells transfected with HLA-G homodimer (*Right*). Total RNA was isolated, and biotinylated cRNAs were used as probes. Hybridization was performed to a common cytokine Superarray membrane as described in *Materials and Methods*. The arrays were exposed to X-ray film, and 1 representative of 3 images is shown. (B) Expression was normalized to GAPDH. The average of 3 experiments is shown. Peripheral CD14⁺ lymphocytes produce a proinflammatory cytokine profile upon (*Upper*) anti-LILRB1 stimulation (black bars) and isotype controls (gray bars), or (*Lower*) coculture with 721.221 (white bars), 721.221 cells transfected with HLA-G monomer (gray bars), or 721.221 cells transfected with HLA-G homodimer (black bars). *, $P < 0.05$; **, $P < 0.01$. Note the scale in *B Upper* is compressed 2-fold relative to that in *Fig. S1B Upper* because the mRNA levels for IL-8 in peripheral CD14⁺ cells were approximately twice that in decidual CD14⁺ cells.

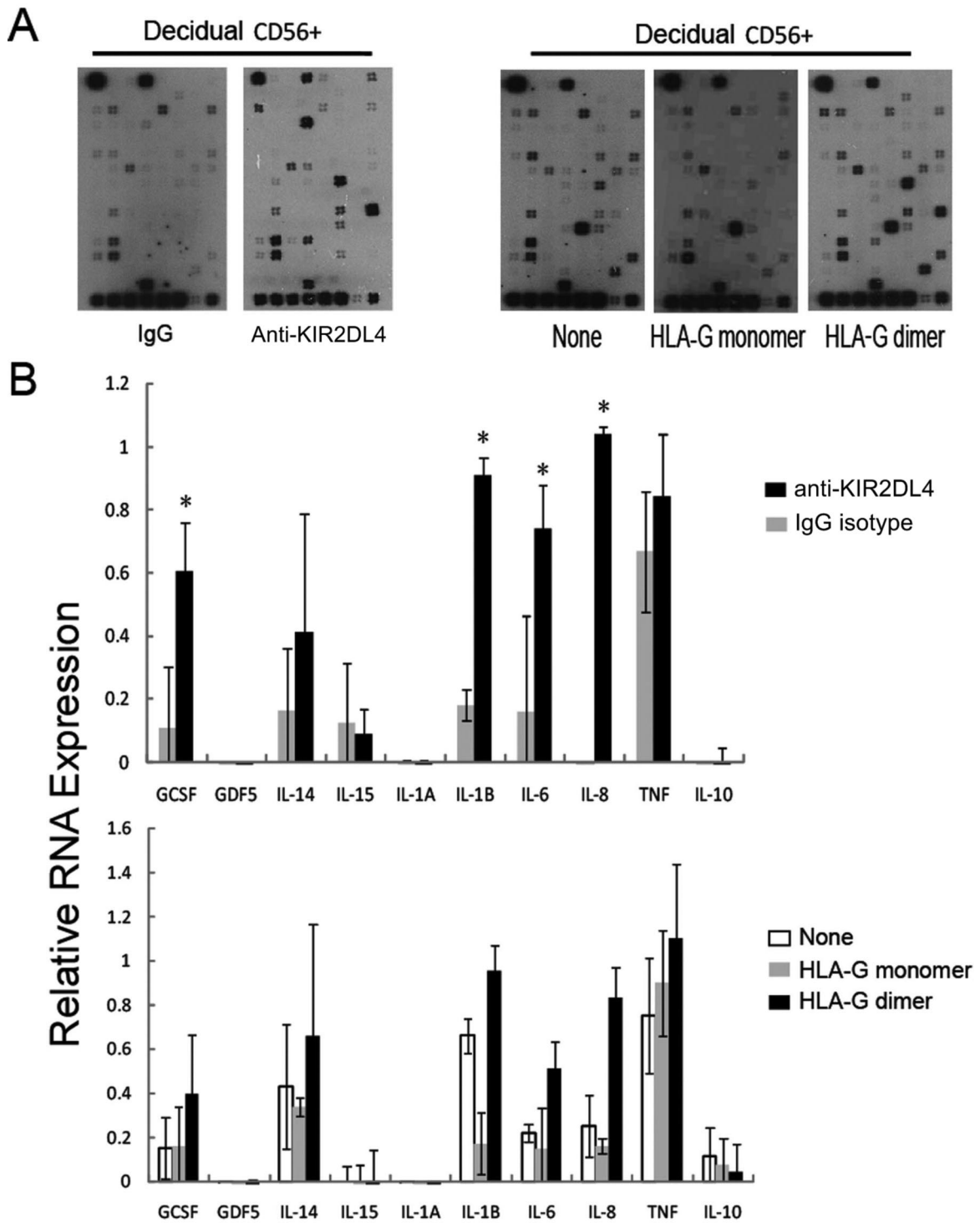


Fig. S3. Anti-KIR2DL4 antibody and HLA-G homodimer up-regulate proinflammatory cytokine genes on decidual CD56⁺ lymphocytes. (A) Decidual CD56⁺ lymphocytes were cultured for 5 h in the presence of anti-KIR2DL4 antibody (10 μ g/mL) and goat anti-mouse IgG secondary antibody (5 μ g/mL) (Left) or in a 1:1 ratio with untransfected 721.221 cells (None), 721.221 cells transfected with HLA-G monomer, or 721.221 cells transfected with HLA-G homodimer (Right). Total RNA was isolated, and biotinylated cRNAs were used as probes. Hybridization was performed to a common cytokine Superarray membrane as described in *Materials and Methods*. The arrays were exposed to X-ray film and 1 representative of 4 images is shown. (B) Expression was normalized to GAPDH. The average of 4 experiments is shown. Decidual CD56⁺ lymphocytes produce a proinflammatory cytokine profile upon (Upper) anti-KIR2DL4 stimulation (black bars) and isotype controls (gray bars), or (Lower) coculture with 721.221 (white bars), 721.221 cells transfected with HLA-G monomer (gray bars), or 721.221 cells transfected with HLA-G homodimer (black bars).*, $P < 0.05$.

Table S1. Genes constitutively expressed in various cell types

Gene Name (Position)	Peripheral CD14 ⁺ Monocytes	Decidual CD14 ⁺ Macrophages	Decidual CD56 ⁺ NK cells
CSF3 (17)		+	+
CYFIP2 (18)		+	+
BMP8B (14)		+/-	
LASS1 (25)			+/-
GDF3 (30)			+/-
FAM3C (21)		+	+
FGF10 (22)		+	
FLT3LG (24)		+/-	+
IL12A (48)		+/-	+
IL10 (46)			+
IFNB (41)			+/-
IFNG (42)			++
IL13 (50)	+/-		+/-
TXLNA (51)		++	+
IL15 (52)			+/-
IL17B (55)			+
IL17C (56)			+/-
IL18 (59)	+		
IL19 (60)			+/-
IL1A (61)		+/-	
IL1B (62)		+++	++
IL20 (70)	+		
IL26 (74)		+/-	++
IL6 (78)		+	+
IL7 (79)			+/-
IL8 (80)	+	++	
LTA (85)	++	++	+++
LTB (86)			+
PDGFB (90)	+	+/-	++
SPP1 (92)		+	
THPO (97)			+/-
TNF (98)	++	+++	++
TNFSF4 (108)			+/-
CD70 (111)	+	+	+
VEGFB (116)	++	++	+++

This chart was made by evaluating the intensity of the hybridization spots in the Superarray in Figs. S1–S3, which were obtained after incubation with untransfected 721.221 cells; this is a qualitative estimate. Gene position refers to the number shown in Fig. 1C. Differences between decidual CD14⁺ and CD56⁺ NK cells are highlighted. Scores are given as +++ for the highest intensity observed, whereas +/- indicates the lowest intensity observed.