Supplementary Table 3a. The top 105 lymphocyte-associated genes (up-regulated in the HER2+I) which can accurately separate HER2+I from the HER2+NI. These were used in the analysis of the Harris et al data. The first 9 genes, marked with *, are chemokines near the HER2+ amplicon at chr17q12. The remaining genes are sorted by their chromosomal location (from chr 1 to chr X), in decreasing order of their signal-to-noise-ratio (SNR).

	Gene Name	Description	SNR Score	Feature P valu	FDR(BH)	Q Value
*	CCL5	chemokine (C-C motif) ligand 5	1.395	0.002	0.036	0.025
*	CCR7	chemokine (C-C motif) receptor 7	1.362	0.002	0.036	0.025
*	CD79B	CD79B antigen (immunoglobulin-associated beta)	1.248	0.002	0.036	0.025
*	CCL13	chemokine (C-C motif) ligand 13	1.003	0.002	0.036	0.025
*	CCL2	chemokine (C-C motif) ligand 2	0.737	0.004	0.056	0.037
*	CCL8	chemokine (C-C motif) ligand 8	0.724	0.002	0.036	0.025
*	CCL18	chemokine (C-C motif) ligand 18 (pulmonary and activation-regulated)	0.703	0.002	0.036	0.025
*	CCL23	chemokine (C-C motif) ligand 23	0.701	0.002	0.036	0.025
*	CCR6	chemokine (C-C motif) receptor 6	0.715	0.002	0.036	0.025
	IL10RA	interleukin 10 receptor, alpha	1.806	0.002	0.036	0.025
	CCR2	chemokine (C-C motif) receptor 2	1.612	0.002	0.036	0.025
	IL16	interleukin 16 (lymphocyte chemoattractant factor)	1.551	0.002	0.036	0.025
	LTB	lymphotoxin beta (TNF superfamily, member 3)	1.547	0.002	0.036	0.025
	CD53	CD53 antigen	1.514	0.002	0.036	0.025
	IL15RA	interleukin 15 receptor, alpha	1.509	0.002	0.036	0.025
	CSF2RB	colony stimulating factor 2 receptor, beta, low-affinity (granulocyte-macrophage)	1.418	0.002	0.036	0.025
	XCL1	chemokine (C motif) ligand 1	1.414	0.002	0.036	0.025
	IL18RAP	interleukin 18 receptor accessory protein	1.410	0.002	0.036	0.025
	IGSF4B	immunoglobulin superfamily, member 4B	0.597	0.002	0.036	0.025
	TNFRSF1B	tumor necrosis factor receptor superfamily, member 1B	1.398	0.002	0.036	0.025
	PAX5	paired box gene 5 (B-cell lineage specific activator protein)	1.343	0.002	0.036	0.025
	IL2RG	interleukin 2 receptor, gamma (severe combined immunodeficiency)	1.326	0.002	0.036	0.025
	CXCL9	chemokine (C-X-C motif) ligand 9	1.271	0.002	0.036	0.025
	CD97	CD97 antigen	1.225	0.002	0.036	0.025
	CCR5	chemokine (C-C motif) receptor 5	1.207	0.002	0.036	0.025
	LY9	lymphocyte antigen 9	1.201	0.002	0.036	0.025
	IGKV1D-13	immunoglobulin kappa variable 1D-13	0.922	0.002	0.036	0.025
	IGKV1-5	immunoglobulin kappa variable 1-5	0.832	0.002	0.036	0.025
	FLT3LG	fms-related tyrosine kinase 3 ligand	1.175	0.002	0.036	0.025
	CD28	CD28 antigen (Tp44)	1.163	0.002	0.036	0.025
	POU2AF1	POU domain, class 2, associating factor 1	1.136	0.002	0.036	0.025
	CCL19	chemokine (C-C motif) ligand 19	1.132	0.002	0.036	0.025
	ITGB2	integrin, beta 2 (antigen CD18 (p95), lymphocyte function-associated antigen 1; macrophage antigen 1	1.131	0.002	0.036	0.025
	IRF4	interferon regulatory factor 4	1.125	0.002	0.036	0.025
	CD74	CD74 antigen (invariant polypeptide of major histocompatibility complex, class II antigen-associated)	1.106	0.002	0.036	0.025
	CXCR6	chemokine (C-X-C motif) receptor 6	1.094	0.002	0.036	0.025
	CXCR4	chemokine (C-X-C motif) receptor 4	1.014	0.002	0.036	0.025
	CXCL10	chemokine (C-X-C motif) ligand 10	0.994	0.002	0.036	0.025
	BLR1	Burkitt lymphoma receptor 1, GTP binding protein (chemokine (C-X-C motif) receptor 5)	0.991	0.002	0.036	0.025
	TNFSF14	tumor necrosis factor (ligand) superfamily, member 14	0.950	0.002	0.036	0.025
	IL21R	interleukin 21 receptor	0.945	0.002	0.036	0.025
	NMI	N-myc (and STAT) interactor	0.936	0.002	0.036	0.025
	IGJ	immunoglobulin J polypeptide, linker protein for immunoglobulin alpha and mu polypeptides	0.858	0.002	0.036	0.025
	IL18R1	interleukin 18 receptor 1	0.931	0.002	0.036	0.025
	FASLG	Fas ligand (TNF superfamily, member 6)	0.927	0.002	0.036	0.025
	LY75	lymphocyte antigen 75	0.915	0.002	0.036	0.025
	TLR1	toll-like receptor 1	0.903	0.002	0.036	0.025
	C3AR1	complement component 3a receptor 1	0.900	0.002	0.036	0.025
	CXCL13	chemokine (C-X-C motif) ligand 13 (B-cell chemoattractant)	0.889	0.002	0.036	0.025
	AIF1	allograft inflammatory factor 1	0.877	0.002	0.036	0.025
	MYD88	myeloid differentiation primary response gene (88)	0.874	0.002	0.036	0.025
	APOL3	apolipoprotein L, 3	0.865	0.002	0.036	0.025
	CSF1R	colony stimulating factor 1 receptor, formerly McDonough feline sarcoma viral (v-fms) oncogene homo	0.861	0.002	0.036	0.025
	CXCR3	chemokine (C-X-C motif) receptor 3	0.857	0.002	0.036	0.025
	DOCK2	dedicator of cytokinesis 2	0.843	0.002	0.036	0.025
	APOL2	apolipoprotein L, 2	0.830	0.002	0.036	0.025
	IL2RB	interleukin 2 receptor, beta	0.818	0.002	0.036	0.025
	CD180	CD180 antigen	0.818	0.002	0.036	0.025
	CD86	CD86 antigen (CD28 antigen ligand 2, B7-2 antigen)	0.814	0.002	0.036	0.025
	PLA2G2D	phospholipase A2, group IID	0.798	0.004	0.056	0.037
	CD22	CD22 antigen /// myelin associated glycoprotein	0.797	0.002	0.036	0.025
	CXCL11	chemokine (C-X-C motif) ligand 11	0.797	0.002	0.036	0.025
	CD40	CD40 antigen (TNF receptor superfamily member 5)	0.797	0.002	0.036	0.025
	IRF7	interferon regulatory factor 7	0.787	0.002	0.036	0.025
	SERPING1	serine (or cysteine) proteinase inhibitor, clade G (C1 inhibitor), member 1, (angioedema, hereditary)	0.784	0.002	0.036	0.025
	B2M	beta-2-microglobulin	0.784	0.002	0.036	0.025
	IL32	interleukin 32 /// interleukin 32	0.769	0.002	0.036	0.025
	CSF2RA	colony stimulating factor 2 receptor, alpha, low-affinity (granulocyte-macrophage)	0.764	0.002	0.036	0.025
	IFNG	interferon, gamma	0.757	0.002	0.036	0.025
	CCR1	chemokine (C-C motif) receptor 1	0.750	0.002	0.036	0.025
	IGHM	immunoglobulin heavy constant mu	1.020	0.002	0.036	0.025
	IGHA1	immunoglobulin heavy constant alpha 1 /// immunoglobulin heavy constant alpha 2 (A2m marker) /// hy	0.921	0.002	0.036	0.025
	NR3C1	nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)	0.745	0.002	0.036	0.025
	IGHD	immunoglobulin heavy constant delta	0.596	0.004	0.056	0.037
	IL7R	interleukin 7 receptor	1.826	0.002	0.036	0.025
	BATF	basic leucine zipper transcription factor, ATF-like	0.740	0.002	0.036	0.025
	IGSF6	immunoglobulin superfamily, member 6	0.743	0.002	0.036	0.025
	NCR3	natural cytotoxicity triggering receptor 3	0.734	0.002	0.036	0.025

SYK	spleen tyrosine kinase	0.724	0.002	0.036	0.025
PTAFR	platelet-activating factor receptor	0.717	0.002	0.036	0.025
C3	complement component 3	0.713	0.004	0.056	0.037
EBI3	Epstein-Barr virus induced gene 3	0.706	0.002	0.036	0.025
IL15	interleukin 15	0.699	0.002	0.036	0.025
IL6R	interleukin 6 receptor	0.678	0.004	0.056	0.037
CYBB	cytochrome b-245, beta polypeptide (chronic granulomatous disease)	0.677	0.004	0.056	0.037
IL8RB	interleukin 8 receptor, beta	0.674	0.004	0.056	0.037
IL9R	interleukin 9 receptor /// similar to interleukin 9 receptor	0.671	0.004	0.056	0.037
IFNAR2	interferon (alpha, beta and omega) receptor 2	0.662	0.002	0.036	0.025
CD80	CD80 antigen (CD28 antigen ligand 1, B7-1 antigen)	0.660	0.004	0.056	0.037
C1R	complement component 1, r subcomponent	0.646	0.002	0.036	0.025
C2	complement component 2	0.646	0.004	0.056	0.037
IGLJ3	immunoglobulin lambda joining 3	1.006	0.002	0.036	0.025
IGLV2-14	immunoglobulin lambda variable 2-14	0.924	0.002	0.036	0.025
IGLL1	immunoglobulin lambda-like polypeptide 1	0.685	0.002	0.036	0.025
IGLC1	Immunoglobulin lambda constant 1 (Mcg marker) /// Immunoglobulin lambda variable 3-21	0.682	0.002	0.036	0.025
GRN	granulin	0.632	0.004	0.056	0.037
CD14	CD14 antigen	0.620	0.002	0.036	0.025
FPR1	formyl peptide receptor 1	0.614	0.002	0.036	0.025
TNFRSF9	tumor necrosis factor receptor superfamily, member 9	0.609	0.004	0.056	0.037
IL7	interleukin 7	0.597	0.002	0.036	0.025
TLR7	toll-like receptor 7	0.573	0.004	0.056	0.037
TLR2	toll-like receptor 2	0.566	0.004	0.056	0.037
NFATC3	nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 3	0.564	0.004	0.056	0.037
EPOR	erythropoietin receptor	0.553	0.004	0.056	0.037
TNF	tumor necrosis factor (TNF superfamily, member 2)	0.549	0.004	0.056	0.037