

**Supplementary Table 1. Correlation between SELDAI-2K index and production of molecules in unstimulated and TNF-stimulated PBMCs from patients with SLE and Rhupus.**

	SLE				Rhupus			
	Unstimulated PBMC		TNF-stimulated PBMC		Unstimulated PBMC		TNF-stimulated PBMC	
	Correlation coefficient (r)	P	Correlation coefficient (r)	P	Correlation coefficient (r)	P	Correlation coefficient (r)	P
<b>IL-27</b>	0.027	0.954	<b>-0.901</b>	<b>0.006</b>	0.058	0.901	0.193	0.679
<b>gp130/sIL-6Rb</b>	-0.090	0.848	-0.450	0.310	<b>0.926</b>	<b>0.003</b>	<b>0.926</b>	<b>0.003</b>
<b>IL-22</b>	-0.126	0.788	-0.667	0.102	0.463	0.296	0.463	0.296
<b>sIL6-Ra</b>	-0.432	0.333	-0.432	0.333	-0.31	0.618	-0.309	0.501
<b>IFN-<math>\alpha</math>2</b>	-0.018	0.969	-0.697	0.082	0.272	0.554	0.193	0.679
<b>IL-26</b>	-0.162	0.728	-0.342	0.452	0.540	0.211	-0.077	0.869
<b>IL-19</b>	-0.126	0.788	-0.577	0.175	0.374	0.445	0.386	0.393
<b>IL-20</b>	-0.109	0.816	<b>-0.755</b>	<b>0.050</b>	0.463	0.296	0.347	0.445
<b>IL-29</b>	0.109	0.816	-0.631	0.129	0.579	0.174	0.077	0.869
<b>IL-35</b>	-0.009	0.985	-0.721	0.068	0.642	0.120	0.347	0.445
<b>BAFF</b>	-0.18	0.969	-0.523	0.229	0.579	0.174	-0.154	0.741
<b>APRIL</b>	<b>0.991</b>	<b>0.000015</b>	<b>0.773</b>	<b>0.042</b>	0.270	0.558	0.463	0.296
<b>MMP1</b>	0.060	0.899	-0.685	0.090	0.383	0.396	-0.039	0.935
<b>IFN-<math>\beta</math></b>	0.036	0.939	-0.685	0.090	0.309	0.501	0.136	0.771

<b>MMP3</b>	-0.018	0.969	-0.523	0.229	<b>0.759</b>	<b>0.048</b>	0.386	0.393
<b>sCD163</b>	-0.396	0.379	-0.667	0.102	0.463	0.296	0.347	0.445
<b>Pentraxin 3</b>	-0.473	0.284	-0.396	0.379	0.347	0.445	0.039	0.935
<b>TSLP</b>	-0.126	0.788	-0.739	0.058	0.280	0.543	-0.039	0.935
<b>sCD30</b>	-0.056	0.905	<b>-0.847</b>	<b>0.016</b>	0.193	0.679	0.077	0.869
<b>IL-8</b>	-0.198	0.670	-0.667	0.102	0.463	0.296	-0.270	0.558
<b>TWEAK</b>	0.324	0.478	-0.360	0.427	0.617	0.140	0.463	0.296
<b>IL-28A</b>	0.000	1.000	-0.667	0.102	0.701	0.080	0.154	0.741
<b>sTNF-R2</b>	-0.306	0.504	-0.342	0.452	-0.424	0.343	-0.424	0.343
<b>Chitinase 3-like 1</b>	-0.541	0.210	<b>-0.793</b>	<b>0.033</b>	0.641	0.121	0.501	0.252
<b>sTNF-R1</b>	-0.342	0.452	-0.667	0.102	0.347	0.445	-0.116	0.805
<b>IL12</b>	0.164	0.726	-0.748	0.053	0.331	0.469	-0.039	0.935
<b>Osteopontin</b>	0.342	0.452	0.252	0.585	0.386	0.393	-0.154	0.741

Spearman correlation test was used to assess the association between SLEDAI-2K index and the production of molecules in unstimulated and TNF-stimulated

PBMCs from SLE and Rhupus patients. Significant p values are in bold.

**Supplementary Table 2. Correlation between the DAS28-CRP index and production of molecules in unstimulated and TNF-stimulated PBMCs from patients with Rhupus.**

Molecule	Rhupus			
	Unstimulated PBMC		TNF-stimulated PBMC	
	Correlation coefficient (r)	P	Correlation coefficient (r)	P
IL-27	0.559	0.192	0.679	0.094
<b>gp130/ sIL-6Rb</b>	<b>0.786</b>	<b>0.036</b>	0.643	0.119
IL-22	0.536	0.215	0.750	0.052
sIL6-Ra	0.214	0.645	-0.107	0.819
IFN- $\alpha$ 2	<b>0.757</b>	<b>0.049</b>	0.643	0.119
IL-26	0.429	0.337	0.000	1.000
IL-19	0.571	0.180	0.536	0.215
IL-20	0.536	0.215	0.536	0.215
IL-29	<b>0.786</b>	<b>0.036</b>	0.643	0.119
IL-35	0.667	0.102	0.679	0.094
BAFF	0.571	0.180	0.500	0.253
APRIL	0.500	0.253	0.714	0.071
MMP1	0.571	0.180	0.607	0.148

<b>IFN-<math>\beta</math></b>	<b>0.821</b>	<b>0.023</b>	0.667	0.102
<b>MMP3</b>	0.703	0.078	0.714	0.071
<b>sCD163</b>	0.536	0.215	0.679	0.094
<b>Pentraxin 3</b>	0.179	0.702	-0.071	0.879
<b>TSLP</b>	0.667	0.102	0.536	0.215
<b>sCD30</b>	0.679	0.094	0.643	0.119
<b>IL-8</b>	0.536	0.215	0.179	0.702
<b>TWEAK</b>	0.429	0.337	0.750	0.052
<b>IL-28A</b>	0.739	0.058	0.643	0.119
<b>sTNF-R2</b>	0.000	1.000	-0.143	0.760
<b>Chitinase 3-like 1</b>	0.556	0.195	0.286	0.535
<b>sTNF-R1</b>	0.536	0.215	0.357	0.432
<b>IL12</b>	0.667	0.102	0.607	0.148
<b>Osteopontin</b>	0.000	1.000	-0.071	0.879

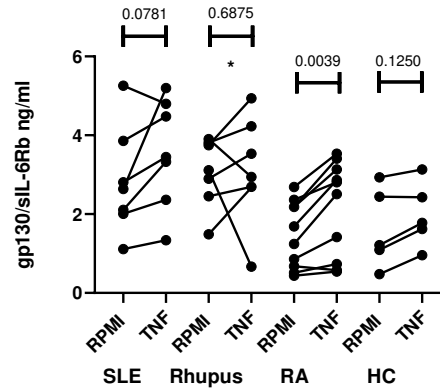
Spearman correlation test was used to assess the association between DAS28-CRP index and the production of molecules in unstimulated and TNF-stimulated PBMCs from Rhupus patients. Significant p values are in bold.

(a)

Kruskal-Wallis test	
P value	0.0161

\* RPMI Rhupus vs RPMI AR  
p= 0.0243

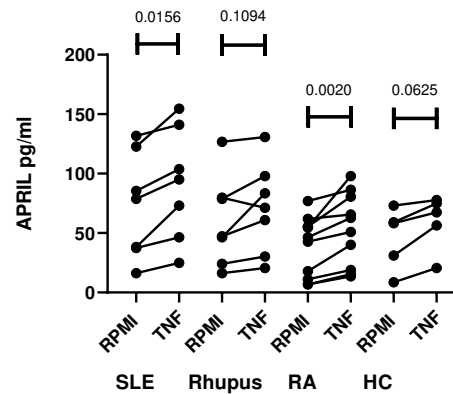
Kruskal-Wallis test	
P value	0.1188



(b)

Kruskal-Wallis test	
P value	0.3072

Kruskal-Wallis test	
P value	0.2774



**Supplementary Figure 1. Increased production levels of gp130/sIL-6Rb and APRIL in PBMCs from patients with Lupus erythematosus systemic, Rhupus, Arthritis Rheumatoid and controls.**

We observed that production of gp130/sIL-6Rb (a) and APRIL (b) were significantly upregulated after TNF treatment in AR patients. Furthermore, the production levels of APRIL (b) were significantly upregulated after TNF treatment in SLE

patients. APRIL: a proliferation-inducing ligand; RA: rheumatoid arthritis; HC: healthy controls; SLE: systemic lupus erythematosus. Analyses were performed using Wilcoxon paired t-test.